

## STRAITS SETTLEMENTS.

### The Straits Settlements Medical Report for the Year 1911.

1. *Population and Health.*—The following table shows the estimated population and the birth and death-rates for the years 1910 and 1911:—

SETTLEMENT.	Estimated mean Population. (Actual.)		Births No.		Deaths No.		Birth Ratio per mille.		Death Ratio per mille.	
	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.
Singapore ...	284,449	303,321	6,445	6,580	12,511	15,499	22·66	21·69	43·98	51·10
Labuan ...	8,199	6,546	235	189	267	183	28·66	28·87	32·56	27·96
Penang ...	134,343	141,559	3,025	3,371	5,119	5,883	22·52	23·81	38·10	41·46
Province Wellesley	123,289	128,978	3,640	3,789	4,185	3,979	29·52	29·38	33·94	30·76
Dindings ...	4,657	7,466	212	198	214	369	45·52	26·52	46·18	48·63
Malacca ...	98,916	124,081	4,455	3,942	5,188	7,162	45·04	31·77	52·45	57·72
Total ...	653,853	711,951	18,012	18,069	27,484	33,075	27·55	25·38	41·88	46·46

*N.B.*—The figures in this statement do not include Christmas Island or Cocos Keeling Islands.

2. The actual population according to the census taken on the 10th March, 1911, was 714,069, an increase on the census figures of 1901 of 24·78 per cent.

The following statement shows in a concise form the figures for the different nationalities and their rates of increase:—

Nationalities.			Census 1901.	Census 1911.	Rate of increase.
Europeans	...	...	5,058	7,368	45·67 per cent.
Eurasians	...	...	7,663	8,072	5·34 "
Chinese	...	...	281,933	369,843	31·18 "
Malays	...	...	215,058	240,206	11·69 "
Indians	...	...	57,150	82,055	43·57 "
Others	...	...	5,387	6,525	21·13 "
Total			572,249	714,069	24·78 per cent.

It should, however, be borne in mind that Labuan was not part of the Colony in 1901 and the census of that year did not include Labuan as it did in 1911. This but makes a small difference so far as the rates of increase in the last column above are

concerned owing to the smallness of the additional population. I give below the figures after excluding Labuan :—

<i>Nationalities.</i>				<i>Rate of increase.</i>	
—				—	
Europeans	...	...	...	45·00	per cent
Eurasians	...	...	...	5·07	„
Chinese	...	...	...	30·54	„
Malays	...	...	...	9·62	„
Indians	...	...	...	43·23	„
Others	...	...	...	20·18	„

3. On comparing the estimated population for the year with the actual census figures it was found that there was an under-estimate of 49,000. This shows that in a population such as that of the Colony the ordinary system of computation in vogue for finding the population of inter-censal years is unreliable. In the circumstances the question arises as to the advantage of having a rough quinquennial census taken without the many abstruse statements which form a special feature of the decennial census. A similar suggestion is made in the Census Report *vide* page 6, paragraph 39. Such an additional census is the more advisable on account of the ever changing populace of Singapore town with its large immigration and emigration of adult males not only by large steamships but also by small native craft and by rail.

4. The number of births registered throughout the Settlements during 1911 was 18,069, as against 18,012 in 1910. This gives a ratio per mille of population of 25·38, as against 27·55 in 1910. The average for the last ten years as given below was 26·50 :—

1902	...	...	...	24·98
1903	...	...	...	26·35
1904	...	...	...	25·59
1905	...	...	...	28·57
1906	...	...	...	25·23
1907	...	...	...	26·11
1908	...	...	...	28·67
1909	...	...	...	26·63
1910	...	...	...	27·55
1911	...	...	...	25·38

5. The death-rate for 1911 was 46·46 per mille, as compared with 41·88 in 1910 and 37·40 in 1909. The death-rate for the last ten years was as follows :—

1902	...	...	...	42·96	per mille.
1903	...	...	...	39·49	„
1904	...	...	...	38·98	„
1905	...	...	...	40·51	„
1906	...	...	...	37·82	„
1907	...	...	...	39·07	„
1908	...	...	...	42·83	„
1909	...	...	...	37·40	„
1910	...	...	...	41·88	„
1911	...	...	...	46·45	„

giving an average rate of 40·74 per mille of population. The death-rate for 1911 cannot but be regarded as extremely high more particularly as the taking of the census in this year precludes any possibility of error. A great variation in the monthly death-rates was noticeable. February showed the lowest (31 per mille), June, the highest (87 per mille). In this latter month but 4 short of 4,000 deaths were registered in the Settlements. The weekly rate in Singapore reached 95 per mille for the week ending 10th June. The rate as is usually seen, began to rise in April, was at its highest in June, July showed the beginning of the fall which continued throughout August. There was a second sharp rise in October which was of short duration. Malaria, for many years past, has headed the list as the cause of the greatest number



of deaths. During the epidemic in April, May, June and July, deaths from Phthisis, Dysentery and Beri-beri also showed a marked increase, rising and falling week by week, nearly similarly. I cannot explain this.

The weekly average number of deaths from Malaria from January 1st to 30th April was in Singapore 41, Penang 17, Malacca 21. The maximum numbers in any one week in the year was, Singapore 127 for the week ending 10th June, 1911; Penang 43 for the week ending 1st July, 1911; Malacca 74 for the week ending 10th June, 1911.

The weekly average death-rate from all causes from January 1st to 30th April was in Singapore 38.47, Penang 34.59, Malacca 53.44. The maximum weekly rate was Singapore 94.54 for the week ending 10th June, 1911; Penang 61.58 for the week ending 22nd July, 1911; Malacca 87.04 for the week ending 10th June, 1911.

The attached chart shows the weekly incidence of Malaria, Beri-beri, Phthisis and Dysentery for the Settlement of Singapore and may be of interest.

The influx of sick labourers from outside the Colony is well known as a contributory factor in swelling our death-rate. In addition to the Malaria outbreak we have had Small-pox practically throughout the year in all Settlements. Cholera also broke out in Singapore and Penang, but these epidemics were in no sense severe. The diseases chiefly affecting our death-rate are dealt with below in detail.

6. Of the number of deaths registered in 1911, 5,242 deaths were among infants under one year of age representing a percentage of 15.85 of the total, against 18.47 in 1910 and 19.7 in 1909. The infantile death-rate per mille for 1911, after excluding the births of children born outside the Colony, was 270.47, against 268.93 in 1910 and 263.67 in 1909. Three thousand six hundred and thirty-five deaths were returned as being due to convulsions, this heading probably covering many different causes.

7. In the hope of lowering this large death-rate among infants, female inspectors have been attached to the Municipal Health Department and visit houses to advise mothers concerning the care of infants. A daily list of births is sent from the Registrar of Birth's Office for their information. With a similar hope it is proposed to license native midwives, when a sufficient number have qualified, under a special Ordinance to be framed for the purpose to the exclusion of the present unlicensed and untrained practitioners. Under the scheme for midwives referred to in paragraph 6 of my report for last year, 6 women were in training during the year of whom 4 obtained certificates of competency.

8. The following table gives the number of cases of zymotic diseases in the Colony during 1910 and 1911 and deaths therefrom not including imported cases:—

SETTLEMENT.	PLAGUE.				CHOLERA.				SMALL-POX.			
	1910.		1911.		1910.		1911.		1910.		1911.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Singapore ...	5	5	35	32	157	148	296	270	414	152	241	98
Penang ...	...	...	...	...	1	1	64	55	894	239	109	36
Dindings ...	...	...	...	...	...	...	...	...	...	...	14	1
Province Wellesley...	...	...	...	...	131	98	19	6	330	69	357	78
Malacca ...	...	...	...	...	...	...	1	1	241	62	558	173
Labuan ...	...	...	...	...	...	...	...	...	...	...	2	...
Total ...	5	5	35	32	289	247	380	332	1,879	522	1,281	386

9. *Plague*.—Of the 35 cases reported all occurred in Singapore Island, 33 being within Municipal limits, of these 32 ended fatally.

10. *Cholera*.—In Singapore, Cholera broke out in March; reached its highest in October and had entirely disappeared by the end of the year. Total cases 296 of which 270 ended fatally. The outbreak at Pasir Panjang Hospital is specially reported on, *vide* Appendix M.

In Penang there were 64 cases, of these 55 ended fatally. Fifty-seven of these cases occurred on the west side of the island chiefly inhabited by fishermen. The infection evidently came from Kedah through these fishermen who have dealings with that district.

In *Province Wellesley* there were 19 cases with 6 deaths. The disease was evidently imported from Penang.

11. *Small-pox*.—There were outbreaks of Small-pox in all the three Settlements, Malacca showing the largest number of cases, viz., 558, and Province Wellesley next, 357 out of a total of 1,281 cases. In Singapore the cases increased in prevalence up to June with a decrease in the second half-year. In all 241 cases occurred in Singapore with 98 deaths, against 414 with 152 deaths in 1910. In Penang the outbreak was a continuance from 1910. Total 109 cases with 36 deaths as against 894 with 239 deaths in 1910. In Malacca the disease occurred in various districts at different times. Alor Gajah District was most affected. School teachers were taught how to vaccinate. A fee of 20 cents was paid to them for each successful vaccination. The results were satisfactory. One feature being that the natives who hitherto evaded vaccination willingly came forward to be operated on by fellow countrymen. In the whole of Malacca 558 cases with 173 deaths were reported.

An examination of the reports of the Medical Officers in the appendices will show the beneficial results of vaccination upon the course of this disease.

12. *Diphtheria*.—Five cases were treated in the hospitals of the Colony with one death, compared with 8 cases and 3 deaths in 1910. In all 14 cases were notified to the Health Department, compared with 20 in 1910. The total deaths from this cause were 7. All the cases reported occurred in Singapore.

13. *Enteric Fever*.—One hundred and seventy-five cases were admitted to the hospitals for treatment, 11 remained from the previous year, giving a total treated of 186. Of these 102 terminated fatally. There were 113 cases with 47 deaths in 1910. The reason for this exceptionally high mortality rate is that the large majority of cases are brought in only in the later stages of the disease and when very dangerously ill, hopelessly so frequently.

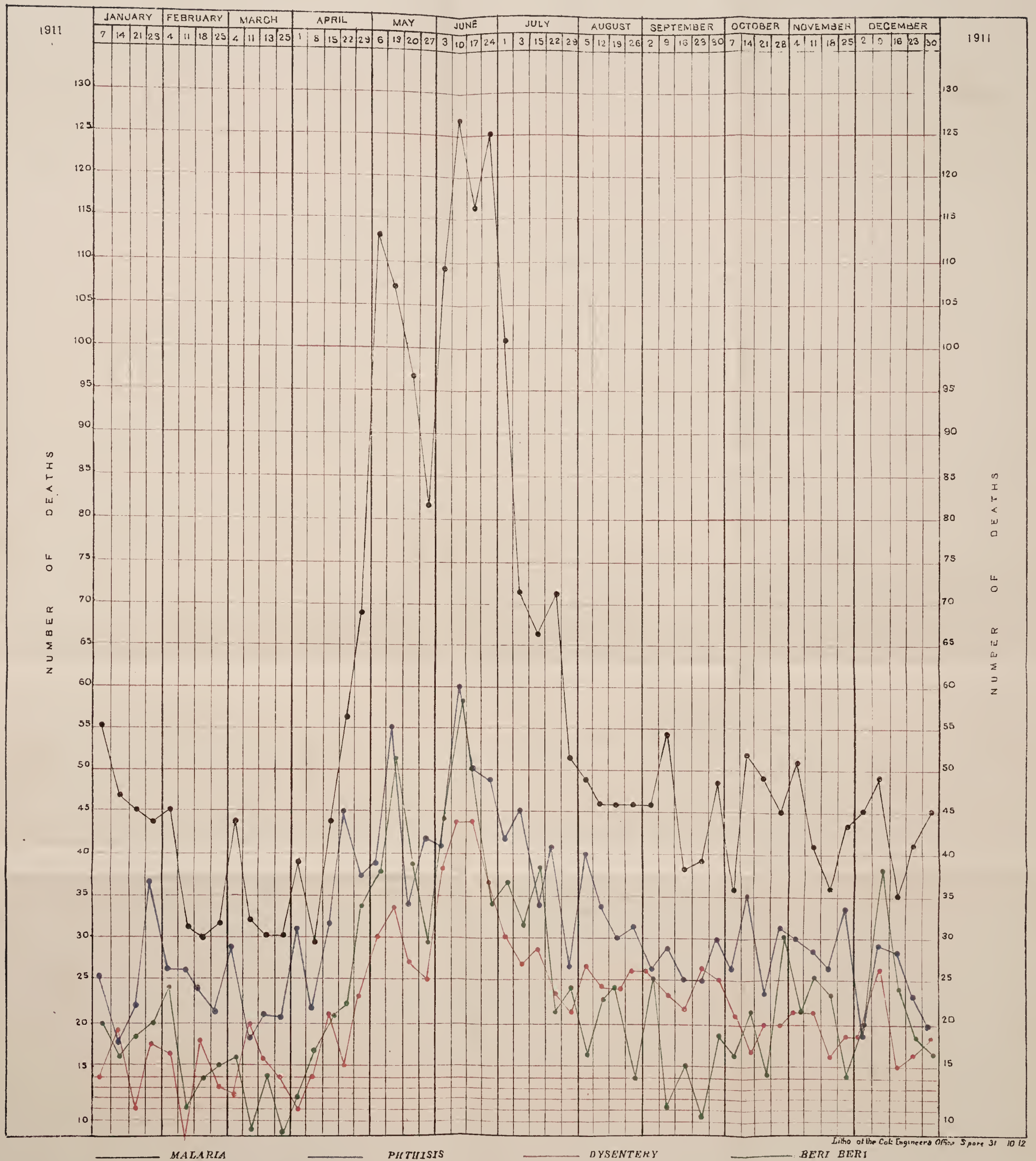
14. *Beri-beri*.—The deaths from Beri-beri were 2,056 as compared with 1,737 in 1910. The use of cured rice in the different institutions of the Colony has lessened the death-rate from this cause so far as those treated in hospitals are concerned. Although the actual cause of the disease still awaits elucidation, there can be little doubt that the consumption of over milled rice is a factor in its incidence. In our present state of knowledge legislation upon the question would be premature, and in any case it would be difficult, entailing as it must, considerable interference with the staple food supply of the people. This subject is being carefully watched and it may be possible in the future to induce mill owners to somewhat vary their process of milling. The disease is on the increase in Malacca where the number of deaths from this cause was 443 for 1911, against 267 in 1910 and 219 in 1909. This rise of Beri-beri in Malacca coincides with the diminishing cultivation of padi, natives there finding it more profitable to work for rubber planters or to cultivate rubber themselves. At the Beri-beri Hospital at Pasir Panjang, Singapore, of 521 cases treated for this disease but three deaths out of 16 are attributed to Beri-beri. The following table gives the deaths from Beri-beri for the last 5 years, for all Settlements:—

*Deaths from Beri-beri.*

Settlement.	1907.	1908.	1909.	1910.	1911.
Singapore ...	1,213	1,117	873	1,071	1,220
Penang ...	212	534	399	367	368
Province Wellesley ...	9	20	11	6	6
Dindings ...	5	2	4	7	9
Malacca ...	187	227	219	267	443
Labuan ...	...	...	...	19	10
Total ...	1,626	1,900	1,506	1,737	2,056



Chart shewing the total weekly deaths from Malaria, Phthisis, Dysentery and Beri-beri in Singapore Island for the year 1911







15. The following are the number of Beri-beri cases treated in the various hospitals of the Colony for the past five years:—

<i>Years.</i>		<i>Total Cases.</i>	<i>Deaths.</i>	<i>Percentage of Deaths.</i>
—		—	—	—
1907	...	1,806	243	13·45
1908	...	2,777	284	10·23
1909	...	2,118	224	10·57
1910	...	2,044	290	14·18
1911	...	2,152	242	11·24

16. *Venereal Diseases.*—The admissions to all hospitals in 1911 were 2,591 with 40 deaths, as compared with 2,299 with 42 deaths in 1910. These numbers represent but a small proportion of those admitted to hospitals with venereal diseases, a large number being returned under other headings. Several cases of Syphilis were treated with Salvarsan both intra-venously and intra-muscularly; all did well. Lengthy observation of these patients was impracticable owing to the impossibility of inducing Chinese coolies, when once recovered, to return for observation. Wassermann reactions were performed by the Pathological Department at the end of the year for the first time and should prove of material assistance in diagnosis.

17. *Phthisis.*—Deaths registered from this cause were 2,907, against 2,571 for 1910 and 2,659 in 1909. Improvement in the death-rate from this disease is hoped to be shown in a few years when time is given for the sanitary conditions of the bigger towns to improve by the gradual construction of back-lanes, improved drainage, more cubic space and less over-crowding, more air and sun-light, etc., in tenement dwellings, matters now being taken in hand by the Municipalities.

18. *Dysentery.*—The deaths from this cause totalled 2,035. The figures for 1910 being 1,392 and for 1909 1,241. A large addition to the water supply of Singapore will soon be completed, improvement to the water supply of other districts is under consideration and it is trusted that progress on these lines may tend to lessen the incidence of the disease. The number of cases treated in the hospitals show:—

Remaining	1910	...	...	...	62
Admitted	1911	...	...	...	2,206
Total					2,268

but 4 short of 1,000 of these cases ended fatally, patients so frequently only coming to hospital for treatment when in the last stage of their disease. In 1910 the total treated was 1,643 with 689 deaths. It is astonishing that so many of these patients remain so long alive with but remnants of mucosa in the lower bowel.

19. *Malaria.*—There was a wide-spread and exceptional increase of Malaria throughout all Settlements. An increase of this disease has been steady and progressive for several years as shown by the hospital admissions.

An epidemic of the disease commenced towards the end of April, was at its highest in May and June, and steadily fell throughout July and August to our normal rate, a rate though that must be considered far too high. About these same months in Penang and Malacca (not so seriously in the former) similar conditions prevailed. In Malacca places where Malaria was formerly little known had several cases of locally contracted disease.

The death-rate from this cause also shows corresponding increase, a conspicuous feature being the number of cases of a malignant type. The deaths from Malaria in all Settlements including Labuan were 5,821, compared with 3,300 in 1910 and 2,589 in 1909.

The total admissions to hospitals were 11,815 with 1,014 deaths, as against 7,433 with 690 deaths in 1910 and 5,083 with 431 deaths in 1909.

Out of 7,173 children examined for enlarged spleen 854 or nearly 12 per cent were found affected.

A crusade against this disease is being undertaken, but some years must elapse before any marked results are likely to be seen.

Works carried out in this connexion are given in detail under paragraph 20. The Municipal Ordinance is being revised *in toto* and sections are to be added dealing with the breeding of mosquitos, prevention of Malaria, etc. In the middle of the year a Malaria Committee was formed in Singapore and a preliminary sum of \$20,000 was granted for expenditure upon Malaria prevention. A Pathologist is being procured from England to relieve Dr. FINLAYSON, the Government Pathologist, so that the latter officer may be seconded for special duty in this connexion and he will begin work almost immediately with the view of formulating some considered scheme for the stamping out of all anopheline breeding places within Singapore Municipal limits. A start has already been made with one of the worse districts in Singapore, later other portions of the Settlements are to be taken in hand. Throughout the year minor works have been undertaken by the Health Department of all Municipalities as well as the clearing of drains and oiling of pools. In Singapore and Malacca all the Sanitary Inspectors had petty anti-mosquito works included in their daily rounds. In Penang 68 men (daily average) were specially employed on such work. Four thousand nine hundred grains of quinine were distributed gratis in Singapore by the Municipality. Five hundred grains were distributed in the schools, an uncertain quantity to coolies and others in Penang and about 4½ lbs. were distributed in Malacca. There is no doubt that one of the causes for this large increase in the incidence of Malaria is the opening up and clearing of new estates in all parts of the Peninsula with the consequent large influx of coolies whose tendency when ill or unfit for work is to flock into the towns for treatment bringing the means of disseminating the disease with them.

Dr. WATSON from Klang visited Singapore during the year and put forward some valuable suggestions as to Anti-malaria measures to be undertaken.

In Penang the Municipality voted \$15,000 for anti-malarial works.

20. *Sanitation.*—The following works were carried out:—

*Singapore.*—Reclamation at Mount Zion was continued from last year, 184,547 tons of dredgings from Singapore river were deposited at a cost of \$38,637.

Low-lying ground at Penang Lane was raised, an area of 29,458 square feet at a cost of \$989.

Low-lying ground at New Bridge Road opposite General Hospital was filled up. Area 157,904 square feet at a cost of \$9,450. Improvements to Government House grounds \$2,249. Grounds and roads round Central Police Station raised and improved at a cost of \$520.

			\$
<i>Penang.</i> —New drains at Tanjong Tokong Village	...	4,474	
New drains at Balik Pulau Village	...	2,498	
New drains at Nibong Tebal Village	...	3,080	

Extensions and repairs to drainage in Province Wellesley \$3,000. In Labuan an inspector was appointed by the Sanitary Board and improvement in the general condition of the town is already reported. The Estate Labourers (Protection of Health) Ordinance was passed during the year and a special Medical Officer was asked for as a preliminary step. I am of opinion, however, that one Medical man will not be able to properly supervise the large number of estates in the three Settlements and additional men will no doubt be needed later. This special staff with a few subordinate officers will form the nucleus of a Health Department so that eventually an efficient body should exist to deal not only with estates but with village sanitation and all infectious cases occurring outside Municipal limits. A considerable amount of work has been done by the Municipalities. In Singapore the building of a new Infectious Disease Hospital was started and should be completed in 1912. A new sewage scheme was adopted for Singapore and will be taken in hand shortly. An up-to-date incinerator at Alexandra Road has been completed. The Kallang Reservoir water supply was made available and is an addition of 2½ to 3½ million gallons per day to the town supply. There was further progress with the "back-lanes" and "improvement schemes" and lands are being acquired in several quarters of the town. The Kampong Kapur Scheme was dealt with, low-lying land being filled up and streets and back-lanes laid out. Sultan ALI'S Estate was also dealt with by improving



the buildings and demolishing insanitary areas. The Rochore Canal is to be improved at the joint cost of the Government and Municipality. Three Dairy farms were started during the year under European management.

In Penang the Municipality employed a regular anti-malaria gang of coolies throughout the year. In several localities insanitary houses were demolished. Swampy lands were filled up in places and new streets formed. Many back-lanes were completed and others arranged for. Additional land for the catchment area of the water supply is being gradually acquired.

In Malacca no special works of importance have been undertaken, but the usual anti-malaria measures were undertaken in the town by the Medical Officer.

A Medical Mission was opened in Malacca during the year and is in charge of two lady doctors. Good work has been done by this mission especially amongst Malay females who ordinarily reject Western methods of treatment and never come to our hospitals.

21. *Ankylostomiasis*.—There were in all 586 cases admitted to hospitals which with the 33 remaining from 1910 give a total treated of 619. Among these there were 150 deaths. There were doubtless additional cases in the Estate hospitals but no accurate details of these can be obtained. The largest number of admissions (371) were returned by the Malacca Hospitals. Under the Estate Labourers Ordinance type latrines are now being insisted upon for all estates.

22. Hospitals and work done in all Settlements:—

Year.	Number of Patients Treated.			Number of Deaths.			Percentage of Deaths to Total Treated.		
	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.
* 1909 ...	1,398	28,868	30,266	70	3,565	3,635	5·01	12·35	12·01
1910 ...	1,463	34,221	35,684	64	4,465	4,529	4·37	13·05	12·69
1911 ...	1,702	45,260	46,962	82	6,042	6,124	4·82	13·33	13·04

The 1st class wards of the General Hospital, Singapore, were frequently full and on several occasions patients had to be treated in 2nd class wards awaiting accommodation. The native wards were often overcrowded so much so in the middle of the year that over 100 patients had to be transferred to the Beri-beri Hospital, Pasir Panjang, where a ward was placed at their disposal. These native wards are of antiquated type and the erection of a more up-to-date structure with suitable operating theatre has been proposed and submitted to Government. An electric light and fan installation for Penang General Hospital was completed early in the year. A similar installation for the General Hospital, Singapore, will be completed in 1912.

The admissions to the Tan Tock Seng's Hospital increase yearly, the opening of the Chinese Free Hospital with some 230 beds not having diminished the rate. The total treated at Tan Tock Seng's Hospital was in 1909, 8,853; 1910, 9,978; 1911, 13,398.

A special Blind ward was erected during the year, the building being the gift of Mr. ONG KIM WEE of Malacca. This ward has accommodation for 50 and only those incurably blind are admitted.

In Penang the admissions to the District (Pauper) Hospital rose from 3,435 to 3,886. Electric lighting was extended to the female District Hospital, a much needed improvement. The Honorary Ophthalmic Surgeon Dr. KIRK was in charge of the Special Eye Ward where 52 out-patients were treated in addition to the in-patients who numbered 140.

\*Includes Lunatic Asylum:—  
 { 556 cases and 78 deaths.  
 { 579 cases and 115 deaths.  
 { 553 cases and 87 deaths.

The total admissions to the Malacca Hospitals were 8,559, compared with 4,618 in 1910 and 2,833 in 1909. The existent hospital staff and accommodation in this Settlement will be insufficient if the large increase of patients just noted persists, but it is probable that the exceptionally unhealthy year is the cause of the influx and that a quick return to the normal rate is to be expected. The staff was increased permanently during the year by two dressers and six servants. The re-building of Jasin Hospital upon a healthier site is to be undertaken.

The revenue collected from all hospitals and dispensaries under treatment bills is as follows:—

		Estimated 1911.	Actual 1911.
		\$	\$
Singapore and Labuan	...	50,400	67,806
Penang and Province Wellesley	...	14,000	20,928
Malacca	...	1,300	8,195
TOTAL		\$65,700	\$96,929

23. The total treated and deaths in the hospitals of the Colony for some of the more important diseases are shown in the subjoined table with the corresponding diseases and deaths in 1910:—

Disease.			1910.		1911.	
			Total treated.	Deaths.	Total treated.	Deaths.
Malaria Fever	...	...	7,312	687	12,029	1,014
Dysentery	...	...	1,643	689	2,268	996
Diarrhoea	...	...	824	159	1,146	332
Beri-beri	...	...	2,044	290	2,152	242
Phthisis	...	...	1,103	554	1,095	576
Enteric	...	...	113	47	186	102
Ulcers	...	...	2,667	8	4,359	8
Venereal Diseases	...	...	2,299	42	2,789	40
Ankylostomiasis	...	...	320	84	619	150

24. *Lunatic Asylum*.—The total number treated was 553 patients, 26 less than in 1910. The recovery rate based on the admissions was 36·81 per cent, compared with 40·79 per cent in the preceding year. The death-rate was 24·30 per cent on the average daily number resident. Cholera for the second year in succession broke out, on this occasion in the wards at Pasir Panjang, and the patients including those from the adjoining Beri-beri wards were sent to the Quarantine Camp on St. John's Island. A full report by Dr. GIBBS appears under *Appendix A, Lunatic Asylum*.

25. *Beri-beri Hospital, Pasir Panjang*.—One hundred and fourteen patients remained over from 1910, 407 were admitted during the year making a total treated of 521, all natives. The total treated in 1910 was 437. Some of the wards in this hospital were used as overflow wards for patients from the General Hospital during June, July and August. Of the 16 deaths which occurred in this hospital only three were certified as due to Beri-beri. It is gratifying to note that the marked usefulness of this hospital continues. The change of diet from over milled to parboiled rice is doubtless the main factor, but the daily sea bathing, massage and exercise, insisted upon in nearly all cases, appears to largely benefit the patient and quicken the rate of recovery.

26. *Police Force*.—In Singapore there were 5,300 attendances of out-patients, compared with 5,796 in 1910 and 3,924 in 1909. Of the patients 773 were sent to the General Hospital for treatment, 25 being Europeans and 748 natives. The force suffered somewhat severely from Malarial Fever. Of 189 recruits 147 were passed as fit for service and 42 rejected.

27. *Estates*.—The number of estates and consequently the number of labourers have considerably increased. During the year two legislative measures were passed dealing with estates, the Estate Labourers (Protection of Health) Ordinance and the Supervision of Labour Ordinance; comment upon the working of these must await



further experience. There are as yet only 27 hospitals and dispensaries on estates. The admissions and attendances at these hospitals were ascertained to be about 27,478. A number of type plans for coolie lines, latrines and wells were distributed during the year.

The treatment rate for estate labourers in the Government Hospitals has been fixed at 24 cents per head per day.

28. *Out-door Dispensaries.*—Twenty-eight thousand seven hundred and eighty-two patients were treated at the 11 out-door dispensaries of the Colony, against 29,764 in 1910. A change from the old Out-door Dispensary, Singapore, to the new building in North Canal Road was made on the 17th June, a decrease in the number of patients attending occurred in consequence as was to be expected. A second out-door dispensary for Singapore is to be built and will be commenced next year.

29. *Vaccination.*—Seventy-four thousand five hundred and twenty-five vaccinations were performed during the year, compared with 20,990 in 1910. This large increase was due to the special vaccination called for by the presence of small-pox which as stated before was prevalent in the three Settlements. Some of the "Gurus" (Native Schoolmasters) in Malacca were instructed in vaccinating and did good work, they were paid 20 cents for each successful case. These men did 8,241 vaccinations of which 5,522 were successful and some of the natives otherwise un-get-at-able were thus dealt with. The Vaccination Ordinance needs amendment as it does not work with sufficient thoroughness. Early attention to this matter is to be given. It is also found difficult to get in correct returns, undoubtedly many vaccinations are never registered. During this as in past years, a circular was sent to all private practitioners requesting particulars of their vaccination work, but with few exceptions no returns have been made by them.

30. *Quarantine.*—The number of passengers and crew examined on arrival in Singapore was 427,409 and 110,882, respectively, against 364,720 and 103,148 in 1910. The disinfecting launch *Hygeia* was in use throughout the year. During the year a regulation (Government Notification No 1 of 6th January, 1911) was passed fixing a scale of charges for the disinfection of ships, the minimum charge being \$25. The collections under this notification amounted to \$5,017.50. The quarantine station at St. John's Island was occupied throughout the year. A total number of 53,961 contacts were landed, compared with 35,062 in the previous year. The maximum number on any one day was 4,892, taxing the accommodation to its utmost. A new inspection shed was added during the year as also a new sulphur generator.

*In Penang.*—Two hundred and fifteen thousand eight hundred and fifteen passengers and 61,336 crew were examined on arrival during the year as against 168,216 and 49,751 in 1910, these large increases being mostly due to additional immigration from India, several extra vessels having been put on the run by Shipping Agents. The new Quarantine Station at Pulau Jerejak was taken over and occupied on the 6th April. The old Quarantine Station was also in occupation throughout the year owing to the unusually large number of immigrant coolies combined with the occurrence of several outbreaks of Cholera amongst those landed. Extensive structural alterations especially to latrines have since been undertaken to suit the class of person usually landed. 134,957 passengers were detained for observation and treatment, against 71,876 in 1910. The largest number on the Island on any one day was 11,738 in the old and new combined stations; with better facilities now being carried out for isolating contacts in smaller batches, it is to be hoped such a number will never be reached again. Owing to the pressure of work the Assistant Surgeon from the Out-door Dispensary at Chowrasta was put on Port Health duty in addition to his other duties. A European Resident Medical Officer will shortly be stationed at Pulau Jerejak to relieve the Assistant Surgeon now in charge.

31. *Government Analyst's Department.*—The revenue collected by the Analytical Departments at Singapore and Penang was \$18,385, compared with \$17,052 in 1910. The Department in Singapore was short-handed during nine months of the year on account of officers on leave, a considerable amount of revenue-producing work had to be refused in consequence.

32. *Medical School.*—Twenty-two new students entered the school, 16 of whom had passed the Senior Cambridge local examination. Ten students passed out of the school as Licentiates, making a total of 23 men qualified since the opening of the school. At the end of the year 78 students were on the books as studying for the L. M. S. and 24 taking the prescribed course for Hospital Assistants. The new Library and Pathological Museum with offices, the gift of the late Mr. TAN TECK



GUAN, referred to in my last report, was completed and taken over in June, a brass tablet has been affixed to the building in his memory. The standard of teaching is now on a higher scale than when the school was established and with the addition of a 2nd Assistant to the Principal to be paid for from the King EDWARD VII Memorial Fund and a Surgical Lecturer, both shortly to be appointed, one hopes that improved results will gradually ensue.

33. *Pathological Department.*—Two thousand three hundred and thirty-eight autopsies were performed during the year as compared with 1,743 in 1910. An interesting report from Dr. FINLAYSON will be found in Appendix K. On 19th August Dr. FINLAYSON paid a visit to Kelantan to enquire into a disease called by the natives "Kudis Sabuter" which it was supposed had a causal connexion with plague. He returned on 31st idem. A special report was sent to Government.

34. *Medical Department, Labuan.*—The death and birth-rates were 27·97 and 28·87, respectively, against 32·56 and 28·66 in 1910. The population at the census 1911 was found to be 6,545, against an estimated population of 8,199 in 1910. There has been a considerable decrease owing to the closing down of the Coal mines early in the year. The chief causes of death were Fever (57), Tuberculosis (23), Debility and Old Age (16), Beri-beri (10) and Dysentery (6). No epidemic disease occurred during the year. Malaria is still prevalent, 118 out of 276 admissions to the Civil Hospital being for this disease. Nine hundred and fifteen out-patients were attended to during the year as against 1,180 in 1910. Two hundred and ninety-six patients were treated in hospital as against 338 in 1910 and 307 in 1909. Seven patients were Europeans. Dr. CLEVERTON remained in charge throughout the year.

35. *Miscellaneous.*—Fifty licences to Medical Practitioners and Chemists and 26 licences to Dentists were issued in 1911 under "The Deleterious Drugs Ordinance of 1910." Under "The Poisons Ordinance 1905," 54 licences were issued to Chemists and others. Six hundred and sixty-three bills amounting to \$23,358 were issued to Shipping Agents under Rule 34 of the Quarantine and Prevention of Disease Ordinance. One thousand seven hundred and seventy-four Bills of Health, charges amounting to \$8,870, were issued. Two hundred and forty-nine certificates of disinfection by the *Hygeia* (Notification No. 1 of 1911) were issued and brought in \$5,017.

A sum of \$67,806 was collected on account of treatment bills from the General Hospital, Lunatic Asylum and Out-door Dispensary, Singapore, compared with \$55,059.27 in 1910. Forty-three Medical Practitioners were registered, making a total of 252 names standing on the Register. Of these, 134 are in the service of the Straits or Federated Malay States Governments.

There were seven meetings of the Hospital Board held in Singapore during the year. The Hospital charges to wives and children of Government Medical Officers have been reduced by Government and are now the same as the rates for officers themselves. A Commission was appointed to enquire into the working of the Quarantine and Prevention of Diseases Ordinance in the Settlement of Singapore and commenced sittings on the 11th September.

36. *Staff.*—I proceeded on leave on the 10th February and Dr. F. B. CROUCHER, the Acting Senior Medical Officer, General Hospital, Singapore, acted for me in addition to his other duties until April 14th, when Dr. W. H. FRY of the Federated Malay States service relieved him of his duties at the General Hospital. Dr. CROUCHER was confirmed in his appointment as Senior Medical Officer, General Hospital, Singapore, from the 18th March but continued to act as Principal Civil Medical Officer to the end of the year. Dr. R. DANE was confirmed as Senior Medical Officer, Penang, from the same date. Dr. W. S. SHEPPARD filled the vacancy caused by Dr. DANE's promotion as Senior Medical Officer in charge of Officials, Singapore, and took up his new duties on the 6th July.

There were several changes in the post of Medical Officer in charge of Officials, Singapore, during the year:—

Dr. H. W. FURNIVALL acted from 1st January to 16th March, 1911.

Dr. H. J. GIBBS acted from 17th March to 31st April, 1911.

Dr. H. S. SUGARS acted from 1st May to 6th June, 1911.

Dr. H. M. GREEN acted from 7th June to 30th June, 1911.

Dr. H. J. GIBBS acted from 1st July to 6th July, 1911.

Dr. SHEPPARD acted from 7th July to 31st December, 1911.



Dr. WHITTLE from Tan Tock Seng's Hospital relieved Dr. SHEPPARD as Medical Officer, Province Wellesley. Dr. J. GRAY was transferred from Federated Malay States on the 29th June to take charge of Tan Tock Seng's Hospital. Dr. T. D. KENNEDY acted in this post from 4th December on Dr. GRAY proceeding to Europe on sick leave. Dr. E. A. SMITH was transferred to Federated Malay States service from the District Hospital, Penang, on the 13th June. Drs. GREEN and MCHUTCHISON, Medical Officers, Singapore, were transferred to the Federated Malay States service on 28th June and 14th October, respectively, as also Dr. H. S. SUGARS, Medical Officer, Singapore, to the Kedah Government service on 17th June, 1911. Dr. FURNIVALL returned from Federated Malay States on 22nd July, 1911, and took up duties as Resident Medical Officer, St. John's Island. The value of the appointment of Assistant Port Health Officer, Singapore, was raised to Grade £360-480 and Dr. MATHIESON, D. P. H., arrived from home on 26th November, 1911, and took up this duty relieving Dr. MCVAIL who was then transferred to the General Hospital, Singapore. Dr. S. M. LIVESEY, Physiologist, Medical School, proceeded on leave on 12th January and returned on 21st September, Dr. MCHUTCHISON from the General Hospital acted for him during this period. Dr. F. DENT, Government Analyst, returned from leave on 29th September, Mr. J. C. COWAP who had acted for him reverted to his appointment of Deputy Government Analyst, Penang and Mr. HADDON who had been acting in Penang returned to Singapore as Assistant Government Analyst. The following new Medical Officers arrived from England during the year:—

D. A. OGILVIE, on 21st April, 1911, (retired on account of ill-health, 2nd August, 1911.)

J. SHARP, on 24th May, 1911.

T. D. KENNEDY, on 27th May, 1911.

J. R. MCVAIL, on 27th May, 1911.

J. J. HICKEY, on 2nd June, 1911.

R. F. PRIESTLEY, on 26th November, 1911.

A. MATHIESON, on 26th November, 1911.

A corresponding number of changes took place amongst the Medical Officers on Grade £300-420 at the General Hospital, Singapore.

I append the following reports:—

- (a) Singapore Hospitals.
- (b) Penang Hospitals.
- (c) Province Wellesley Hospitals.
- (d) Malacca Hospitals.
- (e) Hospitals for Women.
- (f) Out-door Dispensaries.
- (g) Vaccination.
- (h) Quarantine.
- (i) Government Analyst's Department.
- (j) Medical School.
- (k) Pathological Department.
- (l) Labuan Medical Department.
- (m) Special reports on cholera outbreaks at Pasir Panjang and Penang.

I append also the following returns for Singapore, Penang, Province Wellesley, Malacca and Labuan:—

- (1) Statistics of Population.
- (2) Meteorological Returns.
- (3) Nosological Returns.

W. GILMORE ELLIS,  
*Principal Civil Medical Officer, S. S.*

SINGAPORE, 8th October, 1912.





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## APPENDIX A.

## SINGAPORE.

## General Hospital.

REPORT BY DR. W. H. FRY, *Senior Medical Officer-in-charge.*

1. *Buildings.*—An additional six bedrooms were provided for Nurse Probationers with a bath and lavatory for same.

Part of the swampy ground at the back of the European block was drained by the Sepoy Lines Golf Club to the great benefit of the hospital.

Twenty mosquito nets on wire frames were provided in the first native ward during the year.

*Gas.*—As in former years the gas supply was frequently most unsatisfactory.

From October 20th the Municipality contracted to attend to the gas fittings, supplying the necessary mantles and other requisites as occasion demanded in place of the hospital finding these; the light remains, however, far from satisfactory and often gives rise to complaints from both nurses and patients, interfering with the work of the former and the comfort of the latter. It is hoped, however, that electric lights and fans will be installed next year.

*Telephone.*—The telephone service was on the whole satisfactory, with the continual increase of work at the hospital another line will shortly be necessary to cope with the messages especially during the morning hours.

*Noises.*—The noises in the vicinity of the hospital mentioned in my predecessors' reports still continue, these being most noticeable round the Maternity Block, Sisters' Quarters and 1st Class Wards and arise from the traffic on the road passing between these buildings. I consider this road should be closed by a gate, the constant shouting of hawkers and the passage of 'rikishas, motors and carts interferes considerably with the sleep of the nurses engaged on night duty, and is a source of danger and annoyance to patients in a critical condition. Previous attempts to close this road have failed on account of legal difficulties.

The hospital is indebted to the Singapore and Dutch Clubs, for the supply of magazines, papers and other periodicals.

Those from the Dutch Club included many in Dutch, French and German and these proved invaluable for patients of these nationalities many of whom possess no knowledge of any language save their own.

*Staff.*—I relieved Dr. CROUCHER on April 14th and remained in charge during the year.

Changes among the Medical Officers were numerous.

Dr. G. B. MCHUTCHISON was appointed Assistant Physiologist at the Medical School in June.

Dr. H. S. SUGARS was transferred to Kedah on June 7th.

Dr. H. M. C. GREEN was lent to the Federated Malay States service from July 1st.

Dr. D. A. OGILVIE arrived on April 21st and retired on account of ill-health on August 8th.

Dr. T. D. KENNEDY arrived on May 28th and was transferred to Tan Tock Seng's Hospital on December 4th.

Dr. J. J. HICKEY arrived on June 2nd.

Dr. R. F. PRIESTLEY arrived on November 26th.

Dr. J. R. MCVAIL was transferred from the Port Health Department on December 3rd.

It is to be regretted that the majority of House Surgeons arrive with no knowledge of Tropical diseases, this combined with unavoidable ignorance of native languages forms a serious hindrance to their work and sometimes militates against the satisfactory treatment of patients, time which might profitably be spent in acquiring the latter being devoted to learning the former.

There is an increasing amount of work in this hospital and a Supernumerary Medical Officer has been detailed here for duty when available. A third House Surgeon is being asked for.

*Nursing Staff.*—There were several changes among the Nursing staff. Sister A. BLAIR arrived from England on April 24th, Sister J. D. TAIT on May 5th, and Sister E. SMITH on October 28th.

Nurse Probationer I. MELDRUM was promoted to Sister on February 1st, and Nurse Probationer A. F. MILES on June 10th, the subsequent work of these Sisters thoroughly justifies their promotion. Sister F. M. ELLWORTHY resigned on April 25th, Sister C. E. J. PUGH on September 2nd, Sister R. THEAKER was invalided on November 23rd, and Sisters A. H. THEOBALD and F. B. PEARN were transferred to the Federated Malay States on February 20th and May 25th respectively.

Nurse Probationer A. GOULD was appointed January 1st, and resigned on April 30th.

Nurse Probationer G. RUXTON was appointed January 7th and transferred to Penang, June 21st.

Nurse Probationer E. MCLERNON was appointed January 23rd.

„ „ A. F. KING „ February 1st.

„ „ C. HEATH „ June 1st.

„ „ A. P. MATHIESON was transferred from Penang on June 20th.

„ „ E. BETZHOLD was appointed July 17th.

„ „ M. F. DIAS was transferred to the F. M. S. on June 4th.

„ „ E. F. LECKY resigned on July 7th.

„ „ D. JONES was temporarily employed from September 16th to December 16th.

The Matron, Miss M. J. MCNAIR, was on leave from April 18th to December 16th, the duties during her absence being efficiently performed by Sister E. M. WORTERS.

During the year no less than seven Sisters and six Nurse Probationers were admitted to hospital, exclusive of those whose temporary illness was not sufficiently serious to justify their being treated as in-patients, five of the above admissions were due to Malaria.

As the total Nursing staff is 10 Sisters and 13 Probationers this represents a very high percentage of sickness, particularly when it is remembered that all the staff are selected for physical fitness and that none of the Sisters have been over two years in the Colony.

*Dressers.*—Hospital Assistant A. S. PONNAMPALAM was appointed on June 2nd. Dresser E. JACOB appointed June 7th, was transferred to Tan Tock Seng's Hospital on December 1st, and Dresser A. VELUPILLAY to the same hospital on October 10th. Dresser I. A. DANKER resigned on October 6th, and Dresser N. SUPRAMANIAM was dismissed from the service on September 23rd.

It is unfortunate that not a single Chinese dresser is available for this hospital, the great bulk of the patients (excluding police) are of Chinese nationality, the dressers without exception being alien in language, ideas, sympathy and nationality to the majority of the patients they are required to attend. Attempt is being made to obtain and train a few.

The Senior Students of the Medical School have been of considerable assistance, under the direction of the Principal in the microscopic diagnosis of Malarial fevers and other minor laboratory work.

*Subordinate staff.*—Constant changes took place among the servants of the hospital, 56 new servants being taken on during the year. The work, particularly in the native wards, is exacting and the hours often long, many servants merely use the hospital as a training ground.



A large number of the servants were attacked with Malarial Fever during the year and 43 were admitted to hospital chiefly for this disease, preliminary surveys were undertaken towards the end of the year with a view to diminishing the swampy ground in the vicinity of the hospital by drainage and reclamation, one large swamp has been filled in.

During the second and third quarters of the year when Malaria was most prevalent quinine mixture was served out daily to the menial staff who were required to drink it in the presence of the Steward at the morning roll call.

One death occurred in hospital among the hospital ward boys from Bright's Disease.

The use of an efficient Röntgen Ray apparatus is badly needed, the existing instrument which had been in use for several years is practically useless for diagnostic purposes, while no provision is available for photographic work. A new machine is to be obtained next year.

*Financial.*—\$59,053.80 was received in payment of hospital accounts, \$3,930 of this amount being for Maternity ward patients.

The outstanding amounts unpaid at the end of the year amounted to \$2,074.60.

During the year \$379.55 was written off as irrecoverable the patients having absconded or left the Colony, almost the whole of this amount was owed by patients admitted to the first and second class wards.

The number of free cases treated during the year including those brought in by the Police and "urgent cases" was 625, comprising 53 in the European wards and 572 in the native wards.

*Comparative Table showing Total Number of Patients treated in all Wards during the past five years (exclusive of Maternity patients.)*

—		European Wards.	Died.	Percent- age.	Native Wards.	Died.	Percent- age.
1907	...	625	40	6.4	3,427	313	9.13
1908	...	681	42	6.17	3,689	335	9.08
1909	...	793	33	4.16	3,311	256	7.73
1910	...	832	33	3.97	3,818	368	11.69
1911	...	844	39	4.62	4,564	485	10.62

Of the above 39 European ward deaths, 13 took place within 48 hours of admission, while 160 native deaths occurred within the same period of time, the percentage with such deaths deducted being 3.08 and 6.46, respectively, the majority of such native ward deaths were patients admitted with severe injuries.

#### **First and Second Class Wards.**

The first-class wards have been frequently overcrowded during the year such overflow patients while awaiting their turn for admission having to be treated in the "Seamens" Wards, this fact has been already mentioned in previous reports.

The question of increasing the existing number of beds by erecting an additional storey to the hospital, or otherwise increasing the accommodation, is under consideration.

The chief diseases for which patients sought admission to the first and second class wards were as under, a comparison with the past 4 years being shown, patients in these wards it should be said include Europeans and better class natives :—

—			1911.	1910.	1909.	1908.	1907.
Malarial Fever	...	...	239	211	201	111	78
Venereal Disease	...	...	67	30	55	60	63
Injuries	...	...	66	48	44	55	45
Dysentery	...	...	34	23	30	27	22
Alcoholism	...	...	14	7	13	19	26
Enteric Fever	...	...	14	9	23	22	23
Phthisis	...	...	15	15	11	14	17
Appendicitis	...	...	16	8	11	12	4
Liver Abscess	...	...	6	5	...	7	7

Other diseases of interest were :—Blackwater Fever 3, as compared with 1 case in 1910. Two of these cases were Europeans and 1 Chinese, all contracted the disease in Johore and all had had several previous attacks of Malaria, Burns 6, Beri-beri 7, Cardiac Diseases 11 with 2 deaths, Sprue 2, Hepatitis 7 with 2 deaths, Kidney Diseases 9 with 2 deaths. Fractured Base of Skull 3. No deaths where not so stated.

Dengue claimed 8 admissions in 1911 as compared with 12 in 1910.

The chief causes of death were :—Enteric Fever 5, Phthisis 3, Dysentery 3, Sub Tertian Malaria, Tetanus, Alcoholism, Hepatitis, Peritonitis, Liver Abscess, Acute Miliary Tuberculosis and Nephritis 2 each.

The nationalities of those admitted to the first and second class wards included 521 Europeans, 95 Tamils and other Indians, 69 Eurasians, 33 Japanese, 31 Chinese, 11 Jews and Eurasian Jews and 7 Malays.

Operations in the first and second class wards numbered 75 under general anaesthesia, numerous minor operations being performed under local anaesthetics.

The chief operations comprised :—Liver Abscess with Excision of Ribs 6 Operations on Rectum 9, Amputations 3, Removal of Glands 6, Appendicectomy 2, and Ligature of Thyroid, Tracheotomy, Ruptured Urethra, Laparotomy, Radical cure of Hernia and Mastoid Operation 1 each.

Malarial Fever admissions show a higher number than in any previous year, the increase during the past years being continuous and persistent, a great proportion of these were of the Sub Tertian variety.

Several of the patients admitted to the first class wards with Malaria were engaged in planting in Johore, Negri Sembilan and Malacca.

Venereal Disease admissions are higher than during past years and more than double the number admitted in 1910, the numbers shown moreover represent but a small proportion of those admitted with this complaint, many cases being returned under Rheumatism, Arthritis and other diseases of a venereal origin.

A few patients were treated with Salvassan injection, some intramuscularly, others intravenously, all did well though lengthy observation of the patient was impracticable owing to their leaving hospital shortly after the injection.

Wassermann reactions were performed by the Pathological Department at the end of the year for the first time, and should prove of material assistance in the diagnosis of Venereal Disease.

Dysentery and Appendicitis show a marked increase over previous years.

The admissions for Phthisis remain fairly constant.



### Native Wards.

These wards were greatly overcrowded during the months of April, May, June and July. The maximum number on any one day was 233 on June 13th, the full number of beds available in the general ward being 160 without overcrowding.

Owing to this overcrowding 147 cases of various diseases in convalescent stages were at different times transferred to the Beri-beri Hospital, Pasir Panjang.

The chief diseases treated with a comparison of former years are as under (the numbers including all native ward patients whether police or otherwise) :—

—			1911.	1910.	1909.	1908.	1907.
Malarial Fever	...	...	1,616	1,117	736	858	619
Injuries	...	...	865	889	768	809	448
Venereal Disease	...	...	278	371	246	284	215
Dysentery	...	...	149	119	130	158	123
Enteric Fever	...	...	76	42	69	101	145
Beri-beri	...	...	68	90	80	126	68
Tuberculosis	...	...	43	86	108	91	70
Pneumonia	...	...	33	...	54	23	22
Cholera	...	...	13	...	5	2	5
Plague	...	...	7	...	2	...	...
Small-pox	...	...	2	7	...	1	...

Other cases included Heart Disease 30 with 11 deaths, Bright's Disease 20 with 2 deaths, Ankylostomiasis 23 with 3 deaths, Meningitis 11 with 8 deaths, Myelitis 2 both fatal, Fractures Base of Skull 10 with 6 deaths, Ruptured Spleen 7 all fatal, Liver Abscess 5 with 3 deaths, Cut Throat 3 with no deaths, Ruptured Bladder 2 with 1 death and Hare Lip 1.

The chief causes of death were :—Malaria 111, Injuries 42, Enteric 42, Dysentery 66, Pneumonia 20, Beri-beri 23, Phthisis 24, Peritonitis 13, Broncho-Pneumonia 12, Empyema 8, Tetanus 7 and Cholera 6.

Of the 76 cases of Enteric Fever admitted over a third were 'rikisha coolies residing in 'rikisha depôts in Queen Street, the 'rikisha depôts in Victoria Street supplied some six cases.

As regards Malarial Fever it will be noticed from the above table that the increase in the number of cases has been steady and progressive, in 1906 the number of patients treated was 401, and in 1905, 369.

This disease has considerably swollen the number of deaths during the year, and frequently caused serious overcrowding of the wards from the number of cases admitted. Of the total number of deaths in the native wards 23 per cent were caused by Malaria, compared with a percentage of 11.20 from this disease last year.

It has been obvious also from the autopsies performed that a large number of those dying from other complaints had had their constitutions enfeebled and health wrecked by previous or existing Malarial Fever.

From records kept during such periods as Malaria was most prevalent it was found that very few of the admissions for this year were those of persons residing outside Municipal limits.

In all wards blood films were taken on admission of all suspected Malarial Fever cases, a feature of the microscopic examination of the blood of these patients being the large number in which Sub Tertian or Malignant parasites were found, these exceeding all other varieties.

It has been a matter of general comment that the number of mosquitos in the vicinity of the hospital has greatly exceeded the numbers met with in previous years, this was particularly noticed during the second and third quarters of the year.

The prevalence of Malarial Fever among the members of the Hospital staff has been referred to elsewhere, while several patients comprising both Europeans and natives admitted with other diseases contracted Malaria during their stay in hospital.

Nineteen of the Beri-beri patients were transferred to Pasir Panjang Beri-beri ward for treatment during the year.

To all natives irrespective of race parboiled rice only was issued save in a few rare instances when Siam rice was supplied as an extra to non-Beri-beri patients.

Fifty-two inquests were held during the year on persons who died in the hospital.

Operations in the native wards numbered 174 under general anæsthesia, and numerous others under a local anæsthetic, the former included Abscess opened 36, Operations on Rectum 15, Lithotrity 2, Radical Cure of Hydrocele 7, Radical Cure of Hernia 4, Strangulated Hernia 1, Empyema and Excision of Ribs 4, Laparotomy 5, Amputation of Leg 4, Amputation of Hip Joint 1, Minor Amputations 10, Removal of Tumours 4, Trephining 1, Excision of Eye 4, Liver Abscess 1, Castration 1.

### Native Police.

Seven hundred and forty-eight Police were admitted, as compared with 648 in 1910 and 529 in 1909.

The chief diseases treated were :—

Malarial Fever	...	...	...	...	305
Venereal Disease	...	...	...	...	64
No disease discoverable and Malingering	...	...	...	...	49
Ulcers and Boot-bite	...	...	...	...	31
Bronchitis	...	...	...	...	30
Dysentery	...	...	...	...	19
Synovitis	...	...	...	...	18
Conjunctivitis	...	...	...	...	15
Phthisis	...	...	...	...	11

Eight deaths occurred among the Police—Malaria 4, Dysentery 2, and Anæmia and Pernicious Anæmia 1 each.

The admissions for Malarial Fever were largely in excess of previous years, 219 being admitted in 1910, and 193 in 1909.

The chief nationalities of those admitted were Sikhs 297, Tamils and other Indians 225, Malays 164 and Chinese 62.

From a comparison of the figures given under the previous headings it will be seen that the work done in all wards during the year considerably exceeded the work in former years.

With the increasing population of Singapore and the greatly increased number of coolies now employed in the outlying districts the necessity of providing additional accommodation for both Europeans and natives, particularly the latter, has become acute and steps are being taken for the provision of the necessary additional accommodation.

### Maternity Wards.

The total admissions were 233 as compared with 199 last year, 173 in 1909, and 143 in 1908.

The nationalities of those admitted included :—

Europeans	...	...	60	Japanese	...	...	14
Eurasians	...	...	12	Sikhs	...	...	12
Chinese	...	...	61	Eurasian Jews	...	...	9
Tamils	...	...	30	Malays and Javanese	...	...	8

A number of the European patients admitted came from Malacca and the Federated Malay States, the remainder were from Singapore Island.



One European and 54 natives were admitted as free cases.

Forty-two patients were attended by their own Medical men.

The deliveries comprised 59 European infants, being 33 males and 26 females, the native infants were 58 males and 84 females.

Nature of cases :—

Uncomplicated	...	166	Post Partum Hæmorrhage	9
Tedious and Forceps	...	24	Ante       "       "	1
Placenta Prævia	...	4	Prolapse of cord	... 1
Adherent Placenta	...	2	Abortion	... 2
Occipito Posterior	...	1	Craniotomy	... 1
Transverse...	...	2	Twins	... 3 cases.
Breech	...	2		

The average weight of the European infants was 7 lbs. 4½ oz : that of the native infants 6½ lbs.

Two European infants and 19 native infants were still-born.

There were no deaths among European mothers but 5 among native women, these were, 1 within 20 minutes of admission from Cardiac failure, 1 each from Dysentery, Placenta Prævia, and Rupture of the Broad Ligament and 1 shortly after admission undelivered.

The number of native midwives under training during the year was 6, of these 4 obtained certificates of competency and left to practise in the Municipality, the number remaining at the close of the year was 3.

## Annual Report on the Health of the Police Force in Singapore for 1911.

REPORT BY DR. W. S. SHEPPARD, *Police Surgeon*.

1. There were 5,300 attendances at the out-patient room during the year as compared with 5,796 in 1910, and 3,924 in 1909.

There are some constables who hardly ever let a week pass without reporting sick, however trifling their ailment may be and it is partly on this account that the number of attendances recorded is so large.

2. There has been a gradual decline in the numbers reporting sick. In May there were 641 such reports, in December only 343.

The majority of these attending the sick room are men suffering from slight indisposition or perhaps in some cases merely from Ergophobia.

3. I consider that the health of the Force, as a whole, is good.

4. Seven hundred and seventy-three cases were admitted to the General Hospital; of these 25 were Europeans and 748 were natives.

5. The principal diseases for which admission was sought were as follows :—

Malarial and other fevers	...	...	...	305 cases.
Venereal disorders	...	...	...	67 "
Malingers	...	...	...	49 "
Ulcers and boot-bite	...	...	...	31 "
Bronchitis	...	...	...	30 "
Dysentery	...	...	...	19 "
Conjunctivitis	...	...	...	15 "
Synovitis	...	...	...	13 "
Phthisis	...	...	...	11 "

There were 8 deaths. The figure for Malarial and other fevers is the highest ever recorded.

6. One hundred and eighty-nine recruits were examined during the year. One hundred and forty-seven were passed and 42 were rejected. Of the former there were 4 Europeans, 3 Eurasians, 41 Sikhs, 50 Malays, 27 Chinese, 9 Tamils and 13 of other Indian races. Of the rejected 7 were Sikhs, 18 were Malays, 10 were Chinese and 7 were Indians.

7. The Police Stations were inspected as usual during the year.

8. I replaced Dr. DANE, in charge of the Police in July.

### Prison Hospital.

REPORT BY DR. W. S. SHEPPARD, *Medical Officer*.

1. There were 1,041 admissions to hospital, the daily average of sick being 50·7, against 1,061 and 47·05 respectively in 1910.

2. The following table gives particulars of the various classes of prisoners admitted to hospital:—

—			Criminal.	Civil.	Vagrants.
<i>A.</i>	Total population of Prison	... ..	3,102	3,223	245
<i>B.</i>	Average daily No. in Prison	... ..	777	67	18
<i>C.</i>	Total treated in Hospital	... ..	992	22	76
<i>D.</i>	Percentage of <i>C</i> to <i>A</i>	... ..	31·9	0·68	31·02
<i>E.</i>	Total deaths in Hospital	... ..	30	3	9

3. The health of the prisoners has not been satisfactory, owing chiefly to the prevalence of three disorders, viz., Colitis, Eczema and Neuritis.

4. *Colitis* (with which I group Dysentery and some cases of intractable Diarrhœa) is an old scourge. In 1911, 261 cases were recorded as compared with 315 cases in 1910, and 278 in 1909.

The careful supervision of the food and water supply would seem to leave no loophole for the entrance of these disorders. Nevertheless they recur year after year. Many cases are undoubtedly relapses.

5. *Eczema Scrotum* is a trifling malady in itself, but it causes discomfort and incapacity for the hardest kind of work. The cause is probably imperfect personal cleanliness, this in turn being due to too short a time being allotted to the bathing of the prisoners and, in some instances, perhaps, to insufficient cleansing of infected clothing. Better care is now taken in both these matters.

6. *Neuritis* has probably been prevalent in the gaol for some years past, but it has escaped detection. During the year my attention was directed to it and I was able to compile a list of 75 cases, all were affected but slightly. The lower extremities are the parts commonly affected. Experiments conducted at the Kuala Lumpur Research Institute and at the Singapore Prison tend to show that parboiled rice when cooked under a 40-50 lbs. steam pressure in a closed vessel is not protective against Beri-beri and Neuritis—as was once believed.

Patients suffering from Neuritis are, therefore, now fed on rice cooked in an open pan and the other prisoners on rice cooked in steamers with an air inlet.

7. *Beri-beri*.—Six cases occurred, four in long sentence prisoners, one in a short sentence prisoner and the sixth case was admitted to Prison with the disease. The long sentence prisoners undoubtedly contracted the disease in the Prison. There were no deaths.



8. *Mumps*.—A few cases were recorded amongst a batch of prisoners admitted from an infected estate. No epidemic occurred.

9. *Enteric Fever*.—Four cases were recorded, 2 in long sentence prisoners who appeared to contract the disease in Prison, and two in short sentence and revenue grade, respectively, who were infected outside the Prison.

10. *Deaths in Hospital*.—There were 42 distributed amongst the different grades:—

Middle grade 14, Lower grade 8, Upper grade 1, Short sentence 4, Revenue grade 3, Vagrant 9, Civil prisoners 3.

The percentage of deaths to total treated was 3·8 and the total Prison population 0·63. Besides these deaths in hospital three occurred in long sentence prisoners who died suddenly in their cells. The cause of death being heart failure from disease of the heart.

11. *Causes of death*.—Tuberculosis 11, Dysentery 9, Diarrhœa 3, Cirrhosis Liver 3, Cerebral Hæmorrhage 3, Pneumonia 2, Debility 2, Enteric Fever 1, Chronic Malaria 1, Anæmia and Dropsy 1, Meningitis 1, Abscess of Lung 1, Colitis 1, Nephritis 1, Cancer of Abdomen 1 and Chronic Diarrhœa (Ankylostomiasis) 1.

12. *Suicide*.—On short sentence and one remand prisoner committed suicide by hanging.

13. *Execution*.—Two prisoners convicted of murder were hanged.

14. *Staff*.—I took over the duties of Medical Officer on 7th July. The Assistant Surgeon and Dresser have remained the same.

## Tan Tock Seng's Hospital.

REPORT BY DR. T. D. KENNEDY, *Acting Medical Officer*.

### 1. *Work done.*

Remained 31st December, 1910	...	...	572
Admitted 1911	...	...	12,826
			Total treated ... 13,398
Discharged	...	...	10,865
Died	...	...	1,921
Remaining 31st December, 1911	...	...	612

2. The average daily sick was 608·81, against 519·77 in 1910.

3. The average stay in hospital of the total treated was 16·59 days, while that of those who died was 11·57, of those who were discharged 13·30, and of those remaining at the end of the year 90·78.

4. Of the 10,865 who were discharged 6,506 were recorded as recovered, 3,242 relieved, and 1,117 not improved.

5. The percentage of deaths to total treated was 14·33, against 15·71 in 1910.

6. There were 1,920 deaths. Of this number no less than 337 died within 24 hours of admission, and 145 within 48 hours. Eliminating those dying within 24 hours, the death-rate would be 12·12 instead of 14·33, and eliminating those dying within 48 hours 10·73.

7. The admissions have been the largest number on record—12,826—being an increase over the previous year of 3,924. Notwithstanding the opening of the Kwong-

Wai-Shiu Free Hospital where the patients average daily about 200 there has been no falling off in the numbers seeking admissions here. The Blind ward, No. XIX, was completed and occupied at the end of the year, which gave us an extra ward. In addition, Ward VI, previously occupied by the coolie attendants, was vacated and converted into a surgical ward.

8. The principal diseases treated were:—Malaria, Ulcers, Venereal Diseases, Dysentery, Beri-beri, Phthisis, Injuries, Abscess, Pneumonia, Bubo, Bright's Disease, Rheumatism, Scabies, Bronchitis, Hepatic Cirrhosis, Enteritis, Enteric Fever, Ankylostomiasis and Corneal Ulcer.

9. *Malaria*.—Among the diseases treated Malaria again formed the bulk of the admissions; the number of cases being 5,022 with 476 deaths, against 3,150 cases and 377 deaths in 1910, and 1,922 and 260 deaths in 1909.

The mortality was thus 9·5 per cent as against 11·96 per cent in 1910. Out of this total of 476 deaths, 141 died within 24 hours. Eliminating these the death-rate would be reduced from 9·5 per cent to 6·6 per cent. The prevalent type was malignant:—1,331 out of a total of 2,093 classified cases with 293 deaths out of a total of 316 classified deaths.

The localities from which Malaria cases came were chiefly Johore, Bukit Timah, Tanjong Pagar, Kampong Malacca, Upper Serangoon, Kampong Kapur and Thomson Road.

10. *Ulcers*—There were 1,719 cases of ulcer, against 770 in 1910. Two wards are devoted solely for the treatment of ulcers and they are not enough. There are many cases distributed throughout the other wards. The wastage from this simple cause is lamentable. From ignorance and neglect on the part of the patient, he frequently seeks admission to hospital so late that the only means of saving life is amputation of a limb.

11. *Venereal Diseases*.—They were made up as follows:—

Primary and Secondary Syphilis ...	...	...	889
Gonorrhœal and Syphilitic Arthritis	...	...	222
Gonorrhœa	...	...	100
Total ...			1,211

There were 26 deaths from Secondary Syphilis and 3 from Arthritis.

A few cases of Syphilis, specially selected, were treated for the first time with "606" with excellent results. Thirty were treated by intramuscular injection, and 20 by intravenous.

12. *Dysentery*.—The total number of cases treated were 900, as compared with 642 in 1910, of these 444 died, giving a mortality of 48·4 per cent, against 52·49 per cent in 1910. As in former years this high percentage is largely due to the hopeless condition of patients when they are admitted to hospital. Thirty-one died within 24 hours of admission to hospital.

13. *Beri-beri*.—Four hundred and eighty-five patients were treated, 66 died, a mortality of 13·5 per cent. Of these 66, 36 died within 24 hours of admission, reducing the death-rate to 6·18. This shows a gratifying decrease from the previous year when 590 cases were recorded, with a mortality of 19·67 per cent. 197 chronic cases were transferred to the Beri-beri Hospital at Pasir Panjang.

14. *Pulmonary Tuberculosis*.—Grouped under Phthisis were 385 cases, of these 215 died, giving a death-rate of 55·84. Under general Tuberculosis were 74 cases with 36 deaths.

15. *Pneumonia*.—One hundred and sixty-nine cases were treated with 81 deaths, and 22 cases of Broncho-pneumonia with 18 deaths.

16. *Enteric Fever*.—Sixty-two cases with 36 deaths.

17. *Ankylostomiasis*.—Sixty-seven cases with 29 deaths, 7 of these died within 24 hours of admission.



18. *Lunacy*.—One hundred and thirty-seven patients were sent for observation, of whom 87 were certified as insane and transferred to the Lunatic Asylum.

19. *Medico-legal*.—Seventy-two bodies were sent for Coroner's inquest, in addition there were the usual inquests on those who died in hospital from accidents and injuries. 513 police cases were sent in for treatment.

20. *European ward*.—The total number treated was 420, with 14 deaths from the following causes:—Enteric Fever 2, Cerebral Hæmorrhage 2, Liver Abscess 2, Malaria 1, Beri-beri 1, Phthisis 1, Cystitis 1, Blackwater Fever 1, Sprue 1, Diabetic Coma 1, Senility 1. The diseases were chiefly Malaria, Venereal Diseases, Alcoholism, Phthisis and Bowel Complaints. The nationalities of those treated were:—English 48, Scotch 21, Irish 14, Australasian 5, American 5, Eurasian 87, French 1, German 4, Dutch 6, Russian 1, Japanese 172, and others 56.

21. *Surgical Aspect*.—The surgical work done during the year has been greatly in increase of that done in any former year, the operations numbering 846 as against 583 done in the previous year. A list of them is appended.

22. *Buildings*.—The buildings have been kept in repair. The new Blind Ward was handed over by the Public Works Department and occupied by the end of the year. This has relieved some of the overcrowding of the patients in the wards. The average daily number of patients in hospital still exceeds at times the regulation number of beds.

Plans for a Surgical Waiting Room have been passed. Two hundred mosquito curtains were purchased and six wards supplied with them. It is hoped that the whole hospital be thus equipped with as little delay as possible.

23. *Grounds*.—Gas lighting has been laid for the main roads. As was anticipated this improvement has greatly facilitated the night work of the staff. The low-lying swamp behind the dhoby shed still requires much to be done before it is satisfactorily filled in.

24. *Staff*.—Dr. WHITTLE left for Province Wellesley at the end of June. He was succeeded by Dr. GRAY who went on sick leave on December 4th, when I relieved him. Dr. FINLAYSON, assisted by Mr. BARDHAN, has conducted the pathological work of the hospital. Messrs. RODRIGUEZ, APPADURAI, CARNEGIE and FERNANDEZ were attached as Assistant Surgeons during the most of the year and have done good work.

There have been frequent changes among the dressers. Although our complement has been full, we have been short of Senior Dressers and Hospital Assistants. The shortage in Senior Dressers has been made up by an increase in the number of Junior Dressers which is not satisfactory. A large number of our dressers, as soon as they are partially trained, leave us to go to rubber and other estates and mines where the salary given is considerably greater. Later on it is to be hoped that supply and demand will be better balanced once again.

25. *Visitors*.—The Principal Civil Medical Officer made 21 visits and members of the Committee 12.

## Leper Asylum.

### 1. *Male Camp*.—

Remained 31st December	...	...	9
Admitted	...	...	41
			—
	Total	...	50
			—
Transferred to Pulau Jerejak Camp		...	28
Absconded	...	...	5
Died	...	...	10
Remaining 31st December, 1911		...	7

2. *Female Camp.*—

Remained 31st December, 1910	...	...	28
Admitted	...	...	5
		Total	33
Absconded	...	...	2
Died	...	...	5
Remaining 31st December, 1911	...		26

3. The buildings are clean and in a fair state of repair.

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### Quarantine Camp.

1. Remaining 31st December, 1910	...	...	8
Admitted	...	...	567
		Total	575
Discharged	...	...	395
Died	...	...	168
Absconded	...	...	6
Remained 31st December, 1911	...	...	6

2. The daily average number of patients in hospital was 20·44 per cent.

3. The death-rate was 29·21 per cent.

4. *Cholera.*—One hundred and two cases were admitted during the year. There were 71 deaths, giving a mortality of 69·6 per cent. During the latter part of September to the end of October, there was an outbreak of Cholera when 65 cases were admitted. Forty patients died, giving 38 per cent recoveries. ROGER'S treatment by intravenous injection of hypertonic saline was tried for the first time and gave encouraging results. Forty-six cases were injected one or more times and 27 of them recovered. The percentage of recoveries of those injected was 58 per cent; of 19 uninjected only 2 recovered, a percentage of 10 recoveries.

5. *Plague.*—Eleven patients were admitted, of whom 5 died, giving a mortality of 45·45 per cent. In bubonic cases secured in the early stages of the disease, free incision or the enucleation of the enlarged glands favourably influenced the future course of the disease.

6. *Small-pox.*—The number of cases treated were 231. Of these 65 died, giving a death-rate of 28·13 per cent. Of 124 with evidence of past vaccination but 14 died compared with 51 deaths occurring in 101 unvaccinated cases.

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### Lunatic Asylum.

REPORT BY DR. H. J. GIBBS, *Medical Superintendent.*

There remained on 31st December, 1910, 262 males and 71 females; 190 males and 30 females were admitted in 1911, making a total treated for the year of 452 males and 101 females.

Of the above 13 males and 1 female were second admissions.

Of the total treated in 1911, 70 males and 11 females were discharged recovered; 7 males and 2 females relieved; 3 males and 2 females not improved; 6 males and 1 female absconded and 67 males and 20 females died.

There remained in the Asylum on 31st December, 1911, 299 males and 65 females, a total of 364 patients.



The average daily number resident was 358 consisting of 288 males and 70 females.

The maximum and minimum daily numbers were 380 and 328 respectively.

Of the 364 patients remaining on 31st December, 1911:—

*Males. Females.*

—	—				
174	38	...	...	came from Singapore.	
80	15	...	...	„ „ Penang.	
9	4	...	...	„ „ Province Wellesley.	
17	6	...	...	„ „ Malacca.	
2	—	...	...	„ „ Seremban.	
2	1	...	...	„ „ Johore.	
8	1	...	...	„ „ Kuantan.	
2	—	...	...	„ „ British North Borneo.	
2	—	...	...	„ „ Labuan.	
3	—	...	...	„ „ Kelantan.	

The nationalities of those remaining were:—

*Males. Females.*

	—	—
British	3	0
German	1	0
Dutch	0	1
Eurasian	8	2
Jew	1	0
Japanese	1	1
Tamil	15	6
Malay	15	6
Javanese	7	3
Bugis	0	1
Bombay	1	0
Bengali	1	0
Arab	1	0
Singhalese	1	0
Jawipekan	0	1

*Chinese:—*

Kheh	...	...	42	4
Hokkien	...	...	90	10
Tieu-Chew	...	...	41	5
Cantonese	...	...	32	25
Hailam	...	...	30	0
Kow Chew	...	...	3	0
Lui Chew	...	...	4	0
Tribe not known	...	...	2	0

The recovery and death-rates on the total treated for 1911 were 14·65 and 15·75 respectively.

The death-rate for 1911 based on the average number resident was 24·30 per cent.

Cholera, Dysentery and Tuberculosis are largely answerable for this high rate.

The recovery rate calculated on the admissions was 36·81 per cent.

Table *V* shows amongst the admissions the new cases and those re-admitted from 1890 to 1910. The re-admissions bear a proportion to total admissions for 21 years of 9·81 per cent.

Table *VI* shows the length of residence in the Asylum of those who recovered and died in 1911. The majority of the recoveries and deaths occurred, respectively, in those with a residence of one to nine months, and from under one month to five years.

The number of deaths occurring in those with under a month's residence indicates the greatly impaired physical condition of many of the patients on admission.

Table *Xa* gives the probable causes apparent or assigned of the disorders in the admissions. Amongst the main causes assigned malaria again ranks highest with 62, thus contributing 28·18 per cent of the admissions as against 14·04 of the previous year. The Asylum shared with the rest of the town and country in the epidemic. So bad was it here that but few of the staff escaped. At one time both dressers, the steward, clerk and the matron were seriously ill with the disease. Of the many patients who suffered 9 died.

Venereal Disease is assigned as the cause of 21 cases of mental break-down, it is doubtful if these figures are correct in more than three per cent of the cases.

Alcohol, Pulmonary Tuberculosis, previous attacks, old age and hereditary influences yielded, respectively, 17, 16, 17, 9 and 7 cases.

Alcohol, as a factor in the causation of insanity, shows a slightly higher rate than it did for 1910. The percentage for 1911 is 7·73, against 7·02 in 1910 and 6·36 in 1909. About 50 per cent of the cases answered to Dr. ELLIS' description given in his report for 1908.

In 72 of the admissions no cause could be assigned.

In no case could the opium or morphia habit be assigned as a cause of insanity.

There remained on the 31st of December, 1910, 20 lunatic criminals and criminal lunatics, in 1911, 20 were admitted, 3 discharged, 4 died, the sentences of 6 expired and there remained on 31st December, 1911, 16 criminal lunatics and 11 lunatic criminals of whom 3 were females.

*Beri-beri*.—One patient was admitted in August with the disease from Singapore, otherwise, the Asylum has remained free. The experiment of feeding the patients with undermilled Siam rice commenced on the 21st December, 1910, was continued with two or three short breaks from want of such rice until 30th November, 1911, when it had to be abandoned owing to the Government of Siam refusing to export any on account of the rice famine. During the period the patients were so fed no *Beri-beri* occurred.

*Cholera*.—I regret to have to again record an outbreak of this disease amongst the patients at Pasir Panjang Asylum. The first case occurred on August 17th. Three days after the commencement of the outbreak all patients were removed to the Quarantine Station on St. John's Island.

There were no cases amongst the *Beri-beri* patients in the adjoining wards at first, but within three days the disease also broke out there and the patients were removed to St. John's on August 23rd.

A return to Pasir Panjang was made on the 19th September.

During their stay on the Quarantine Station 11 deaths from Cholera occurred amongst the insane, 2 amongst the *Beri-beri* patients, and 1 hospital servant, a toty, died.

One of the Bengali attendants was also attacked with Cholera on St. John's, he recovered.

It is difficult to account for this outbreak at Pasir Panjang, 5 miles from town, although cases of Cholera were being reported in Singapore at the time.

A few days before the outbreak the Municipal water supply was noticed to be offensive and dirty, the water having become stagnant. Arrangements were at once made for the more frequent flushing of the main. It is hardly probable that this water was in fault or a far bigger and more general outbreak must have occurred.

*Suicide*.—There were several attempts made during the year. One male who hanged himself was unconscious when cut down and only recovered after artificial respiration had been performed for half an hour.

*Casualties*.—These were mostly trifling with the exception of one case, a male patient, who rushed out of the workshed and climbed up a tree to fall and fracture the



bones of his right forearm at the same time rupturing the bowel. He was sent at once to the General Hospital where he died the next day.

An interesting case to note is that of a malarial patient with an enlarged and diseased spleen, who ruptured his spleen by violent vomiting and died within two hours.

*Admissions.*—Of the 190 males and 30 females :—

*Males. Females.*

—	—					
112	17	...	...	...	came from	Singapore.
46	7	...	...	...	„ „	Penang.
7	3	...	...	...	„ „	Province Wellesley.
7	1	...	...	...	„ „	Malacca.
1	0	...	...	...	„ „	Perak.
1	0	...	...	...	„ „	Johore.
0	1	...	...	...	„ „	Pahang.
10	1	...	...	...	„ „	Kuantan.
4	0	...	...	...	„ „	Kelantan.
1	0	...	...	...	„ „	British North Borneo.
1	0	...	...	...	„ „	Sumatra.

*Industries.*—During the year 6,192 yards of check cotton cloth have been woven from which were made 18 European jackets and 19 European trousers, 1,066 native male jackets, 1,214 native male trousers, 199 sarongs, 243 jackets and 4 kimonos for females, 35 mattress covers, 72 dusters and 24 pillow cases.

From sail canvas purchased 25 strong rugs and 7 combination suits were made.

*General.*—The revenue derived from paying patients amounted to \$5,269.15 and sale of old stores produced \$38.24.

*Buildings.*—The steward's stores were converted into an association ward which provided much needed extra accommodation, an unused ward adjoining the office was converted into a store room.

I am glad to be able to report the erection at Pasir Panjang of a cottage consisting of two bed rooms and a 3-bedded dormitory for European females. This meets a long and badly felt want.

Clinical teaching of psychological medicine is given to the students of the Medical School during the summer session.

*Staff.*—Mr. LEICESTER, Assistant Surgeon, was transferred to Penang on the 1st February, 1911, his place being taken by Mr. BATEMAN.

European Attendant NIALI was granted eleven months' leave.

My thanks are due to the whole staff for their ready co-operation in the work of the Asylum.

TABLE I.

## LUNATIC ASYLUM.

*Table showing the Admissions, Discharges and Deaths during the Year 1911.*

—	Male.	Female.	Total.	Male.	Female.	Total.
In the Asylum on 1st January, 1911	...	...	...	262	71	333
Cases admitted :—						
First Admissions	...	...	...	177	29	206
Not First Admissions	...	...	...	13	1	14
Total cases under care during the year	...	...	...	452	101	553
Cases Discharged :—						
Recovered	70	11	81	...	...	...
Relieved	7	2	9	...	...	...
Not Relieved	3	2	5	...	...	...
Absconded	6	1	7	...	...	...
Died	67	20	87	...	...	...
Total cases discharged and died during the year	...	...	...	153	36	189
Remaining in the Asylum on 31st December, 1911	...	...	...	299	65	364
Average number resident during the year	...	...	...	288	70	358



TABLE II.

## LUNATIC ASYLUM.

*Table showing the Admissions, Re-admissions, Discharges and Deaths from 31st December, 1888, to 31st December, 1911.*

—	Male.	Female.	Total.	Male.	Female.	Total.
Remaining on 31st December, 1888	...	...	...	176	32	208
Persons admitted during the period	...	...	...	3,614	623	4,237
Re-admissions	...	...	...	384	77	461
Total cases treated	...	...	...	4,174	732	4,906
Discharged Cases :—						31
Recovered	1,669	227	1,896	...	...	...
Relieved	398	103	501	...	...	...
Not improved	117	46	163	...	...	...
Absconded	126	22	148	...	...	...
Died	1,565	269	1,834	...	...	...
Total cases discharged and died since 31st December, 1888	...	...	...	3,875	667	4,542
Remaining in Asylum on 31st December, 1911	...	...	...	299	65	364

TABLE III.

## LUNATIC ASYLUM.

Table showing the Admissions, Discharges and Deaths, with the Mean Annual Mortality and Proportion of Recoveries per cent on the Admissions for the Year 1886 to 1911 inclusive.

YEAR.	Admitted.			Discharged.									Absconded.			Died.			Average Number Resident.						Percentage of Recoveries on Admissions.			Percentage of Deaths on the Average Number Resident.		
	Male.	Female.	Total.	Recovered.			Relieved.			Not Improved.			Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
				Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.																		
1886	...	...	164	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	33.52	
1887	173	17	190	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14.81	
1888	153	23	176	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25.00	
1889	186	24	210	67	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.69	
1890	224	30	254	87	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.00	
1891	162	30	192	61	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38.18	
1892	158	29	187	71	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38.54	
1893	184	33	217	65	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.33	
1894	169	29	198	69	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48.27	
1895	173	34	207	70	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31.82	
1896	202	28	230	86	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20.97	
1897	122	26	148	62	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30.77	
1898	137	24	161	61	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.00	
1899	130	32	162	51	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19.15	
1900	157	30	187	54	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19.23	
1901	154	21	175	74	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16.98	
1902	143	16	159	82	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	57.69	
1903	191	30	221	70	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21.52	
1904	223	31	254	90	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.98	
1905	200	28	228	101	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21.52	
1906	199	32	231	85	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.98	
1907	163	34	197	80	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21.52	
1908	175	37	212	57	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.98	
1909	174	46	220	77	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21.52	
1910	182	46	228	79	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.98	
1911	190	30	220	70	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21.52	



TABLE IV.

LUNATIC ASYLUM.

Table showing the History of the Annual Admissions, since 1889, with the Discharges and Deaths, and the Numbers of each Year Remaining on 31st December of the Year reported on.

YEAR.	Admitted.			Of each Year's Admissions, Discharged and Died in 1911.										Total Discharged and Died of each Year's Admissions to 31st December, 1911.										Remaining of each Year's Admissions, 31st December, 1911.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	New Cases.	Re-admissions.		Recovered.		Relieved.		Not Improved.		Absconded.		Died.		Recovered.		Relieved.		Not Improved.		Absconded.		Died.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Male.	Female.	Male.	Female.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Prior to 1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

TABLE V.  
LUNATIC ASYLUM.

*Showing the Causes of Deaths during the Year 1911, together with the Ages at Deaths.*

CAUSES OF DEATH.	Under 15 years.		15 and under 20 years.		20 and under 25 years.		25 and under 30 years.		30 and under 35 years.		35 and under 40 years.		40 and under 45 years.		45 and under 50 years.		50 and under 55 years.		55 and under 60 years.		60 and under 65 years.		65 and under 70 years.		70 and under 75 years.		75 and under 80 years.		TOTAL.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
INFECTIVE DISEASES.—																														
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sapremia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gangrene	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF NERVOUS SYSTEM.—																														
Cerebral Hæmorrhage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Brain Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chronic Brain Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilitic Brain Disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
General Paralysis of the Insane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE CIRCULATORY SYSTEM.—																														
Valvular Disease of Heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rupture of Aneurysm Arch of Aorta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried forward	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	60	19	79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...





TABLE VI.

## LUNATIC ASYLUM.

*Table showing the Length of Residence of those Discharged, Recovered and of those who Died, during the Year 1911.*

Length of Residence.				Recovered.			Died.		
				Male.	Female.	Total.	Male.	Female.	Total.
Under one month	...	...	...	5	...	5	11	...	11
From one to three months	...	...	...	14	1	15	11	2	13
„ three to six months	...	...	...	27	5	32	11	2	13
„ six to nine months	...	...	...	13	4	17	8	2	10
„ nine to twelve months	...	...	...	6	1	7	3	...	3
„ one to two years	...	...	...	5	...	5	2	4	6
„ two to three years	...	...	...	...	...	...	3	...	3
„ three to five years	...	...	...	...	...	...	7	7	14
„ five to seven years	...	...	...	...	...	...	5	1	6
„ seven to ten years	...	...	...	...	...	...	4	1	5
„ ten to fifteen years	...	...	...	...	...	...	1	...	1
„ fifteen to twenty-five years	...	...	...	...	...	...	1	...	1
„ twenty-five to thirty years	...	...	...	...	...	...	...	1	1
TOTAL				70	11	81	67	20	87



TABLE X-a.  
LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1911.

ADMISSIONS.												
Number of Instances in which a Cause was Assigned.												
Admissions :—Male 190. Female 30. Total 220.												
CAUSES.	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.*			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends) ... ..	..	...	...	...	4	4	...	...	...	...	4	4
Adverse Circumstances (including business anxieties and pecuniary difficulties) ...	...	...	...	4	...	4	...	...	...	4	...	4
Mental Anxiety and Worry and Overwork ...	...	...	...	1	...	1	...	...	...	1	...	1
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ...	...	...	...	...	...	...	...	...	...	...	...	...
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink ... ..	...	...	...	16	1	17	...	...	...	16	1	17
Venereal Disease ... ..	...	...	...	...	...	...	21	...	21	21	...	21
Self-abuse ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Sunstroke ... ..	...	...	...	2	1	3	...	...	...	2	1	3
Accident or Injury ... ..	...	...	...	...	...	...	3	...	3	3	...	3
Pregnancy ... ..	...	...	...	...	2	2	...	...	...	...	2	2
Parturition and the Puerperal State ...	...	...	...	...	...	...	...	...	...	...	...	...
Uterine and Ovarian Disorders ... ..	...	...	...	...	1	1	...	...	...	...	1	1
Lactation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Puberty ... ..	...	...	...	1	1	2	...	...	...	1	1	2
Epilepsy ... ..	...	...	...	...	...	...	3	1	4	3	1	4
Privation and Starvation ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Heart Disease ... ..	...	...	...	...	...	...	4	...	4	4	...	4
Phthisis ... ..	...	...	...	...	...	...	15	1	16	15	1	16
Malarial Fever ... ..	...	...	...	61	1	62	...	...	...	61	1	62
Typhoid Fever ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Other Bodily Diseases or Disorders ...	...	...	...	...	...	...	7	6	13	7	6	13
Previous Attacks ... ..	15	2	17	...	...	...	...	...	...	15	2	17
Old Age ... ..	8	1	9	...	...	...	...	...	...	8	1	9
Morphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ascertained ...	...	5	2	7	...	...	...	...	...	5	2	7
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Unknown ... ..	...	...	...	...	...	...	...	...	...	59	13	72

\* Where these could not be distinguished. † Some of the admissions are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the admissions.

TABLE X-b.

## LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1911.—Continued.

CAUSES.	DISCHARGES.											
	Number of Instances in which a Cause was Assigned.											
	Discharges :—Male 86. Female 16. Total 102.											
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.*			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends) ... ..	...	...	...	2	3	5	...	...	...	2	3	5
Adverse Circumstances (including business anxieties and pecuniary difficulties) ...	...	...	...	...	...	...	...	...	...	...	...	...
Mental Anxiety and Worry and Overwork ...	...	...	...	5	1	6	...	...	...	5	1	6
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ...	...	...	...	...	...	...	...	...	...	...	...	...
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink ... ..	...	...	...	16	...	16	...	...	...	16	...	16
Venereal Disease ... ..	...	...	...	...	...	...	9	...	9	9	...	9
Self-abuse ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Sunstroke ... ..	...	...	...	1	1	2	...	...	...	1	1	2
Accident or Injury ... ..	...	...	...	2	...	2	...	...	...	2	...	2
Pregnancy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Parturition and the Puerperal State ...	...	...	...	...	...	...	...	...	...	...	...	...
Uterine and Ovarian Disorders ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Lactation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Puberty ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Privation and Starvation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Heart Disease ... ..	...	...	...	...	...	...	2	1	3	2	1	3
Phthisis ... ..	...	...	...	...	...	...	4	3	7	4	3	7
Malarial Fever ... ..	...	...	...	42	1	43	...	...	...	42	1	43
Typhoid Fever ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Other Bodily Diseases or Disorders ...	...	...	...	1	3	4	...	...	...	1	3	4
Previous Attacks ... ..	...	8	4	12	...	...	...	...	...	8	4	12
Old Age ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Morphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ascertained ...	...	5	2	7	...	...	...	...	...	5	2	7
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Unknown ... ..	...	...	...	...	...	...	...	...	...	12	5	17

\* Where these could not be distinguished. † Some of the discharges are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the discharges.



TABLE X-c.

## LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1911.—Continued.

CAUSES.	DEATHS.											
	Number of Instances in which a Cause was Assigned.											
	Deaths:—Male 67.				Female 20.				Total 87.			
	As Predisposing Cause.			As Exciting Cause			As Predisposing or Exciting Cause. *			Total. †		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends) ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Adverse Circumstances (including business anxieties and pecuniary difficulties) ... ..	...	...	...	2	1	3	...	...	...	2	1	3
Mental Anxiety and Worry and Overwork ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink ... ..	...	...	...	2	...	2	...	...	...	2	...	2
Venereal Disease ... ..	...	...	...	...	...	...	6	...	6	6	...	6
Self-abuse ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Sunstroke ... ..	...	...	...	1	...	1	...	...	...	1	...	1
Accident or Injury ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Pregnancy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Parturition and the Puerperal State ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Uterine and Ovarian Disorders ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Lactation .. ..	...	...	...	...	...	...	...	...	...	...	...	...
Puberty .. ..	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy .. ..	...	...	...	...	...	...	...	1	1	...	1	1
Privation and Starvation ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Heart Disease .. ..	...	...	...	...	...	...	3	2	5	3	2	5
Phthisis .. ..	...	...	...	...	...	...	11	4	15	11	4	15
Malarial Fever ... ..	...	...	...	8	1	9	...	...	...	8	1	9
Typhoid Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other Bodily Diseases or Disorders ... ..	...	...	...	...	...	...	3	1	4	3	1	4
Previous Attacks ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Old Age ... ..	...	2	2	4	...	...	...	...	...	2	2	4
Morphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking .. ..	...	...	...	...	...	...	...	...	...	...	...	...
Unknown ... ..	...	...	...	...	...	...	...	...	...	34	9	43

\* Where these could not be distinguished. † Some of the deaths are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the deaths.

TABLE XI.

## LUNATIC ASYLUM.

*Showing the Form of Mental Disorder on Admissions and Deaths of the Year 1911, and the Form of Mental Disorder of the Inmates on 31st December, 1911.*

FORM OF MENTAL DISORDER.	Admitted.			Recoveries.			Deaths.			Remaining in Asylum.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital or Infantile Deficiency with Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...
Do. Do. without Epilepsy	1	...	1	...	...	...	...	...	...	9	1	10
Epilepsy acquired ...	2	1	3	...	...	...	...	1	2	7	2	9
General Paralysis of the Insane	...	...	...	...	...	...	2	...	2	...	...	...
Mania, Acute	135	20	155	52	8	60	33	3	36	91	16	107
Do. Acute Delirious	2	...	2	...	...	...	2	...	2	...	...	...
Do. Chronic	1	...	1	...	...	...	3	3	6	...	...	...
Do. Recurrent	...	...	...	...	...	...	...	...	...	...	...	...
Do. A Potu	16	1	17	8	...	8	...	...	...	3	1	3
Do. Puerperal	...	...	...	...	...	...	...	...	...	...	1	1
Do. Senile	...	...	...	...	...	...	...	...	...	...	...	...
Melancholia, Acute	21	2	23	...	...	...	4	3	7	1	1	19
Do. Chronic	...	1	1	6	1	7	...	...	...	18	...	6
Do. Recurrent	...	...	...	...	...	...	...	...	...	...	...	...
Do. A Potu	...	...	...	...	...	...	...	...	...	...	...	...
Do. Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
Do. Senile	...	...	...	...	...	...	...	...	...	...	...	...
Delusional Insanity	4	1	5	2	1	3	...	...	...	8	1	9
Dementia, Primary	1	3	4	1	1	2	...	1	1	3	2	5
Do. Secondary	3	1	4	...	...	...	23	9	32	144	35	179
Do. Senile	2	...	2	...	...	...	...	...	...	2	...	2
Do. Organic	...	...	...	...	...	...	...	...	...	2	3	5
Not Insane on Admission	...	...	...	...	...	...	...	...	...	...	...	...
Convalescent	...	...	...	...	...	...	...	...	...	3	1	4
TOTAL	190	30	220	69	11	80	67	20	87	299	65	364



TABLE XII.

## LUNATIC ASYLUM.

*Showing Occupation of Admissions.*

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Actor, Chinese ...	1	...	1	<i>Brought forward ...</i>	78	2	80
Accountant, Rubber Estate	1	...	1	Grass carrier ...	1	...	1
Aerated Water Manufacturer	1	...	1	Hawker ...	1	...	1
Asst., Opium shop ...	1	...	1	House wife ...	...	6	6
Blacksmith ...	2	...	2	Mason ...	1	...	1
Bullock-cart driver ...	1	...	1	Mattress maker ...	1	...	1
Cake seller ...	1	...	1	Mendicant ...	...	1	1
Carpenter ...	1	...	1	Miner ...	1	...	1
Chief Inspector, Police, F.M.S.	1	...	1	Miner, tin ...	7	...	7
Cigar seller ...	1	...	1	Night-soil carrier ...	1	...	1
Clerk ...	5	...	5	Notice server ...	1	...	1
Clerk, Tally ...	1	...	1	Pineapple curer ...	1	...	1
Cloth merchant ...	1	...	1	Planter ...	1	...	1
Coffee shop seller ...	1	...	1	Planter, coconut ...	1	...	1
Compositor ...	1	...	1	„ Gambier and			
Confectioner ...	1	...	1	„ Rubber ...	2	...	2
Cook ...	2	...	2	„ Padi ...	2	...	2
Cooly ...	10	1	11	„ Pineapple ...	1	...	1
„ Charcoal ...	1	...	1	„ Sireh ...	1	...	1
„ Coconut plantation	1	...	1	Police constable ...	2	...	2
„ Dock ...	2	...	2	Poultry breeder ...	1	...	1
„ Fish ...	1	...	1	Prostitute ...	...	3	3
„ Merchant ...	1	...	1	Rubber tapper ...	1	...	1
„ Rubber plantation	7	...	7	Sailor ...	1	...	1
„ 'Rikisha ...	8	...	8	Salesman ...	1	...	1
„ Sampan ...	2	...	2	Servant ...	1	...	1
„ Shop ...	5	...	5	Shop-keeper ...	1	...	1
„ Tongkang ...	1	...	1	Silver smith ...	1	...	1
Day labourer ...	...	1	1	Stone breaker ...	2	...	2
Domestic servant ...	3	...	3	Store-keeper ...	1	...	1
Driver, F.M.S. ...	1	...	1	Surveyor ...	1	...	1
Druggist ...	1	...	1	Sweet meat seller ...	1	...	1
Duck seller ...	1	...	1	Tailor ...	3	...	3
Dyer ...	1	...	1	Teacher ...	...	1	1
Estate Valuer and Estate Agent	1	...	1	Tin smith ...	1	...	1
Engineer ...	1	...	1	Vagrant ...	1	...	1
Fish seller ...	1	...	1	Vegetable seller ...	1	...	1
Fisherman ...	3	...	3	Watchman ...	1	...	1
Fruit seller ...	1	...	1	Wood cutter ...	2	...	2
Gardener ...	1	...	1	Nil. ...	3	2	5
Gunny bag seller ...	1	...	1	Unknown ...	63	15	78
<i>Carried forward ...</i>	78	2	80	<b>TOTAL ...</b>	190	30	220

## Beri-beri Hospital, Singapore.

REPORT BY DR. H. J. GIBBS, *Physician-in-charge*.

There remained at the end of 1911, 114 patients, 407 were admitted in 1911, a total treated of 521 during the year.

Of these :—Ninety-four were discharged recovered, 184 relieved, 1 not improved, 9 were transferred to the General and Tan Tock Seng Hospitals for diseases other than Beri-beri, 120 absconded and 16 died leaving under treatment at the end of 1911, 97 patients.

Owing to the crowded condition of the General Hospital in Singapore some of the Beri-beri wards were used for the overflow from that hospital from the 21st June to 12th August. During the above period 147 patients were thus received, of these, 115 were malarial cases mostly of the sub-tertian type. Three died from Malaria and 2 from Cholera.

Of the 16 deaths but 3 occurred from Beri-beri, the death-rate from this disease being '77 per cent. The death-rate for the total treated was 3'07 per cent.

The percentage of abscondments was high. Of the 120 so leaving 57 were patients from the General Hospital who resented transfer to Pasir Panjang.

Owing to the occurrence of cholera amongst the neighbouring male and female insane patients on the 19th August and of a case on the 22nd August amongst the Tan Tock Seng's Hospital beri-beri patients the whole of the General Hospital overflow patients, then in residence were, with the beri-beri patients, removed to the Quarantine Station on St. John's Island on the 23rd August.

During their period of quarantine 2 fatal cases of Cholera occurred among the General Hospital patients, the first on the 23rd and the second on the 31st August, they both died on the 31st.

Of the Beri-beri patients the patient attacked on the 22nd died on the 23rd and at St. John's one other was attacked but recovered.

I regret to have to report the death of the toty of the Beri-beri hospital from Cholera. He became infected while in attendance on the patients on the 29th August and died the following day.

During the absence of the patients on St. John's from 23rd August to 19th September, the whole hospital was thoroughly cleansed and disinfected.

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## APPENDIX B.

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### Penang.

REPORT BY DR. R. DANE, *Senior Medical Officer*.

*"Settlement" includes Penang, Province Wellesley and Dindings.*

1. The estimated mean population of the Settlement for 1911 was 278,811 (Penang Island 141,893; Province Wellesley 129,340; Dindings 7,578).

2. *Births*.—The births in the Settlement during 1911 were 7,358. This is an increase of 481 on 1910. Penang Island 3,371, Province Wellesley 3,789, Dindings 198.



3. *Deaths*.—The number of deaths in the Settlement in 1911 was 10,231 (6,973 males, 3,258 females) which shows an increase on 1910 of 713.

4. The death-rate of Penang Island alone was 41.46, an increase of 3.36 per mille on 1910.

*Principal Causes of Deaths, Penang Island alone.*

Causes of Death.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Phthisis ... ..	626	674	641	917	901	738	803
Malaria ... ..	661	677	526	820	712	754	953
Beri-beri ... ..	291	282	212	534	399	367	368
Fever not specified ... ..	608	500	453	444	432	418	455
Dysentery ... ..	222	394	289	314	280	289	333
Convulsions ... ..	445	343	382	280	313	410	255
Tetanus ... ..	...	44	52	137	46	7	107
Diarrhœa ... ..	323	251	211	133	65	121	312

By an analysis made in 1910 of some pages of the death register I estimate that the percentage of reliable causes of deaths for Penang is only 31 per cent, for Province Wellesley 9 per cent.

5. *Beri-beri*.—Parboiled rice is exclusively used in all Government institutions and in them no fresh cases have occurred.

6. *Malarial Fever*.—I attach a return showing the results of an inspection of all the boys' schools in Penang. What I found at Glugor village is typical of some other places. Over an area of about half a square mile there are streams, ditches, big puddles, tiny puddles, small ponds and hoof prints. To level and drain this area would cost a large sum, besides a large amount annually to keep it in order.

My recommendations for treatment now are :—

I. The distribution of tabloids of quinine at cost price. Tabloids ; because the peasant, and others too, will not take the bitter solution, or the powder ; and at cost price because what is given free is not valued ; and because if given free would be cornered by some rogues.

II. Instruction of the boys at schools to recognize mosquito larvæ ; ocular demonstration that these larvæ become mosquitos. I think it likely that the rising generation may thus be induced to help themselves to kill off the mosquito larvæ.

III. A labour party under direction of the Senior Medical Officer, to go round, under control of a sanitary inspector.

7. *Dysentery, Diarrhœa, Etc.*—I have drawn up a circular advising people to come into hospital as soon as they get sick instead of waiting as they now do till they are utterly broken down, and, in but too many cases, on the point of death. The Chinese Advisory Board agrees with me that it is worth while having this posted about in various places in the country and renewed annually.

8. *Infantile Mortality*.—Two thousand and six hundred deaths are reported to have occurred in children under 5 years of age ; including 963 infants not more than 3 months old.

9. The accompanying chart shows the total number of deaths at all ages for each week for 1910 and 1911. The rainfall each week for 1911 is also shown.

10. *General Diseases.*—The admissions to the various hospitals in the Settlement were 12,873, against 10,368 in 1910.

11. *Out-door Dispensaries.*—Total treated 1911—13,249, in 1910—13,544.

12. The Acting Principal Civil Medical Officer inspected in June and December.

13. *Small-pox.*—The 1910 outbreak in Penang continued up to October, 1911; 109 cases and 32 deaths. The 1910 outbreak, Province Wellesley, continued up to end of 1911; 357 cases with 78 deaths. Dindings; began in March and ended in July; 14 cases with one death.

*Cholera.*—An outbreak occurred on the West side of Penang Island. There were 60 cases and 52 deaths. A special report has been sent in.

14. The question of enlarging the accommodation for Europeans at the General Hospital has been under consideration since October. On several occasions there was no room in the Seamen's ward and some patients were temporarily put into the Officers' ward. Besides, admissions had to be refused on several occasions.

15. The New Quarantine Station was opened on April 6th. Latrines had been provided which if properly used would have been ideal. Experience showed that the Tamil cooly would not and could not use them properly, as a consequence the camp became insanitary. These facts not being known publicly false conclusions were drawn.

16. The following figures, showing how unequal are our decennial increases in the population, indicate how misleading our birth and death-rates must be:—

*Table showing Decennial Increases of Population in 30 Years.*

Period.	Settlement.	Penang Island.	Province Wellesley.	Dindings.
1881–1891 ... ..	45,000	33,000	1,100	1,260
1891–1901 ... ..	12,500	5,000	7,000	500
1901–1911 ... ..	30,000	23,000	13,000	3,300

### Quarantine Camp.

REPORT BY DR. R. DANE, *Senior Medical Officer.*

Of infectious diseases there were 61 cases remaining at the beginning of the year (viz., Small-pox 51 and Chicken-pox 10) and 150 were admitted during the year.

2. Three hundred and eleven contacts and 87 observation cases were admitted. Of them 90 were vaccinated for the first time on arrival in the camp, 113 had vaccination marks but were re-vaccinated. Ninety-five having been recently vaccinated and 13 having obvious marks of previous small-pox were not vaccinated.

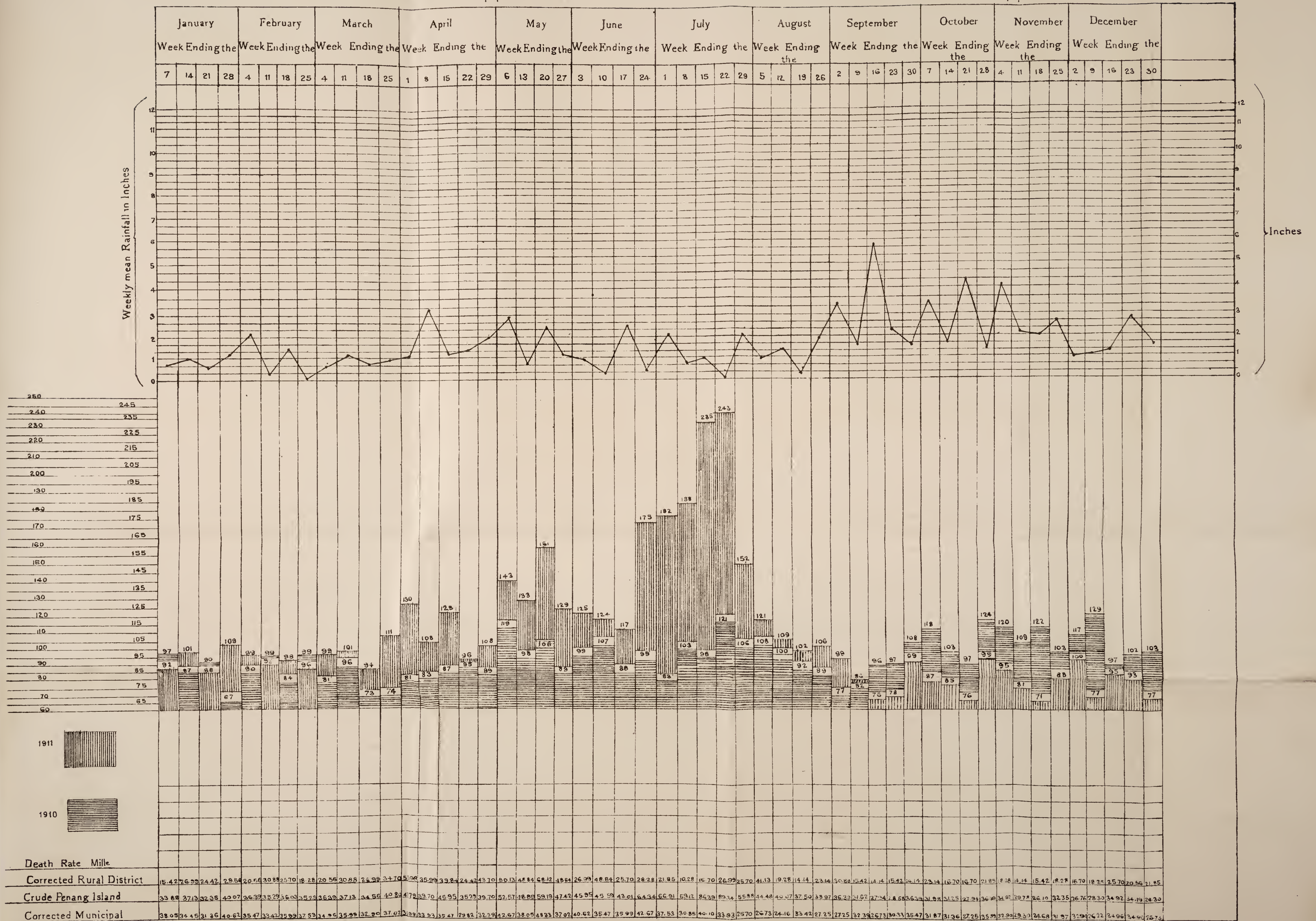
3. Nineteen cases of Small-pox died during the year, 17 of whom bore no vaccination marks. The two cases who acquired small-pox in the camp and died were vaccinated on admission to the camp. They were both infants. They had been in contact with small-pox some days before admission.



Death rate per Mille calculated on a mean annual population 141872  
Rural population 40445

1911

Death rate within Municipal Limits  
calculated on a population of 101427







4. The following is an analysis of Small-pox cases showing the value of vaccination :—

Vaccination Marks.	Number of Cases.	Deaths.	Mortality.
None	76	17	22·36%
1	16	2	15·5%
2	12	...	...
3	12	...	...
More than 3	12	...	...

5. Eleven deaths occurred amongst patients admitted for observation, viz.:— Acute Dysentery 2, Acute Diarrhœa 7, Chronic Diarrhœa 1, Acute Cholecystitis 1.

6. *Buildings.*—The roof of wards No. 2, 3 and 4 were re-attapped. Ward No. 15 and the kitchen between wards Nos. 3 and 4 were wholly re-erected; the former on iron posts and the latter on hard wood posts. Posts of ward No. 13 were replaced with iron posts.

7. *Staff.*—Dresser R. SUBAKRISHNEN was doing duty from the beginning of the year to June 13th, 1911. Dresser A. Y. AARONS from June 13th to October 6th, 1911. Dresser R. SUBAKRISHNEN from October 6th to the end of the year.

TABLE I.

*Table showing Admissions, Discharges, etc., of Infectious Disease Cases for the Year 1911 Classified by Nationality.*

Nationality.	Remained.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining.
Eurasians ...	1	3	4	4	...	...	...	...
Chinese ...	7	16	23	18	1	...	4	...
Malays ...	13	32	45	34	1	1	9	...
Islam Tamils ...	7	19	26	23	...	1	1	1
Tamils ...	32	77	109	89	1	...	19	...
Singhalese ...	...	1	1	1	...	...	...	...
Sikhs ...	...	1	1	1	...	...	...	...
Others ...	1	1	2	1	...	...	1	...
Total ...	61	150	211	171	3	2	34	1



TABLE II.

*Table showing monthly Admission for various Infectious Diseases.*

MONTHS.	Small-pox.	Chicken-pox.	Cholera.	Measles.	Observation and Contacts.
January ...	32	10	...	4	73
February ...	24	3	...	1	43
March ...	11	4	...	1	29
April ...	3	4	...	6	26
May ...	1	1	...	1	19
June ...	...	10	5	...	68
July ...	...	2	7	1	86
August ...	...	...	2	1	25
September ...	3	...	...	...	18
October ...	1	5	2	...	8
November ...	...	4	...	...	1
December ...	...	1	...	...	2
Total ...	75	44	16	15	398

TABLE III.

*Table showing Admissions Classified for Nationality and Disease, for the Year 1911.*

Nationality.	Small-pox.	Chicken-pox.	Cholera.	Measles.	Observation and Contacts.
Europeans ...	...	...	...	...	2
Eurasians ...	1	2	...	...	3
Chinese ...	8	4	3	1	24
Malays ...	29	1	...	2	73
Islam Tamils ...	11	8	...	...	28
Hindus ( Tamils )	25	28	13	11	242
Singhalese ...	...	1	...	...	1
Boyanese ...	...	...	...	...	2
Sikhs ...	...	...	...	1	2
Bengalis ...	...	...	...	...	8
Others ...	1	...	...	...	13
Total ...	75	44	16	15	398

## General Hospital.

REPORT BY DR. J. S. WEBSTER, *Surgeon-in-Charge*.

1. During the year 1911 there have been 276 patients admitted to the European wards and 1,593 to the native wards as compared with 271 and 1,227, respectively, during 1910. This shows an increase of 371 patients, *i.e.*, 24·7 per cent. The mortality excluding deaths within 24 hours of admission was 2·82 for the European wards and 8·07 for the native wards as compared with 2·95 for the Europeans and 4·22 for the natives in the former year. The cause of this increase in the number of deaths occurring in the native wards is easily found in the number of Tamil coolies who have been admitted to hospital in a moribund condition.

2. On several occasions all the beds in the European wards have been occupied and patients have either had to be refused admission or else others, only partially recovered, discharged to make room for them.

3. The principal diseases treated:—

Malaria 399 with 18 deaths.

Tuberculosis 23 with 8 deaths.

Dysentery 84 with 30 deaths.

Venereal 102 with no deaths.

Beri-beri 15 with 5 deaths.

4. *Beri-beri*.—Fifteen cases were treated during the year as compared with 25 in 1910 and 15 in 1909. No case occurred amongst patients admitted to hospital for other diseases.

5. *Operations*.—One hundred and thirty-three operations were performed during the year as compared with 108 in 1910.

6. *Buildings*.—A covered way has been erected between the male and female native wards.

The ward in the centre of the hospital has been divided into three rooms, one a store, another an examination room and the third an isolation room.

Electric light was installed throughout the Hospital in March last and has proved itself very convenient. Several fans were also erected in the Officers' wards and they are much appreciated by the patients.

7. *Changes in the staff*.—Dr. J. SHARP arrived in Penang in May and took up the duties of Assistant Medical Officer, *vice* Dr. J. O'BRIEN who resigned in December, 1910. Miss HARDING, Matron, proceeded to England on leave in April returning in December. Miss S. B. SMITH acted during her absence. Miss FLETCHER arrived from home in May. Miss BROWN resigned in June on the occasion of her marriage. Miss CHRISTIANSEN resigned her post as nurse in September also to get married. Miss MELDRUM was lent from Singapore to act during the last four months of the year. Miss MILES was transferred to Singapore in January. Nurse Probationer Miss MORTON resigned her post in June. Miss MCCARTHY was appointed a Nurse Probationer in June. Mrs. MATHIESON, Nurse Probationer, was transferred to Singapore in August. Mrs. RUXTON, Nurse Probationer, arrived from Singapore in June and assumed duties here. Miss FARRER BAYNES was appointed and assumed duties as a Nurse Probationer in August.

The Lunatic ward is now nursed by trained attendants from the Singapore Asylum. It is proposed to change these attendants every six months. The first two arrived in January last and were relieved by two others in November.



*Table showing the Admissions, Daily Average and Percentage of Deaths, in the General Hospital, Penang.*

	Remained.	Admitted.	Total Treated.	Discharged.	Transferred.	Absconded.	Died.	Remaining.	Average daily sick.	Percentage of Deaths to total treated.	Died within 24 hours of Admission.	Percentage of deaths to total treated including those dying within 24 hours of Admission.
Europeans ...	7	276	283	264	...	1	8	10	10'41	2'82	...	2'82
Natives ...	29	1,142	1,171	912	55	28	136	40	41'39	11'62	11	8'07
Native Police ...	8	451	459	447	1	5	4	2	9'19	0'87	...	
Total ...	44	1,869	1,913	1,623	56	34	148	52	60'99	7'73	11	6'01

### Prison Hospital.

REPORT BY DR. R. DANE, *Senior Medical Officer.*

1. The sanitary condition of the Prison was good, and the health of the prisoners satisfactory.

2. *Figures.*—There were remaining in hospital at the end of 1910, 28 patients, 615 were admitted during the year. The average daily sick was 31'15. The prominent diseases causing admission were Diarrhœa 101, Anæmia 40, Dysentery 28, Phthisis 13.

3. *Mortality.*—Of the 25 deaths 20 were certainly due to disease acquired before arrival in Prison, 15 of them being sent straight into hospital.

4. From October to the end of the year I arranged with the Superintendent of Prisons that all prisoners should be kept in their cells for the first 24 hours after admission so that we could discover any who were suffering with Diarrhœa or Dysentery on arrival. Since this has been done a large number of cases of Diarrhœa has been so detected.

### *Nationality Return of the Prison Hospital, for the Year 1911.*

Nationality.	Remained at end of 1910.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining at end of 1911.
Europeans ...	...	2	2	2	...	...	...	...
Eurasians ...	...	4	4	4	...	...	...	...
Chinese ...	21	363	384	346	4	...	19	15
Malays ...	4	65	69	66	...	...	2	1
Tamils ...	2	109	111	104	...	...	3	4
Javanese ...	...	33	33	33	...	...	...	...
Tamil, Islam ...	1	31	32	31	...	...	...	1
Sikhs ...	...	4	4	3	...	...	1	...
Bengalis ...	...	1	1	...	...	...	...	1
Siamese ...	...	2	2	2	...	...	...	...
Singhalese ...	...	1	1	1	...	...	...	...
Total ...	28	615	643	592	4	...	25	22

## District Hospital.

REPORT BY DR. J. S. WEBSTER, *Medical Officer*.

All the hospital buildings have been kept in good condition during the year 1911.

The accommodation for Hospital servants is inadequate and extra quarters are being asked for.

*Staff.*—Dr. E. A. SMITH was in charge up to June 13th when I was put in charge of the District Hospital in addition to my duties at the General Hospital.

On May 25th Dr. SHARPE was put in charge of a few wards at the District Hospital.

Amongst the Assistant Surgeons Mr. LEICESTER took up duties at the District Hospital on February 3rd.

In September 8th Mr. DE SOUZA was transferred to Butterworth and Mr. NICKELSON relieved him.

Dresser ALCAIN resigned during the year and Dresser KANDASAMY was appointed in his place, Dresser ABOO BAKAR also resigned and Dresser BABOO was appointed. Dresser BABOORAM DAS, a promising dresser, died on December 26th.

—Besides the above resignations there have been frequent transfers amongst the other dressers.

Dresser CARMAGAM returned from leave on 2nd September. The above changes amongst the dressers interfered considerably with the working of the hospital and a considerable amount of extra work and inconvenience was thrown on the Assistant Surgeons in having to train the new men.

*Work done.*—Three hundred and eight patients remained in hospital on the 31st December, 1910, 3,886 patients were admitted during the year as against 3,485 in the previous year.

The average daily sick was 331·13 as compared with 289·73 in 1910.

There were 516 deaths during the year (mortality 13·30 to total treated) as against 527 deaths in the previous year (mortality 14·05). Forty-five patients died within 48 hours of admission. The percentage of deaths to total treated, excluding those dying within 48 hours of admission, was 11·35.

*Operations.*—Sixty-three operations were performed during the year, nearly all of a minor nature.

Table A attached shows the admissions and deaths from principal diseases treated for the past four years.

*Malarial Fever* shows an increase over those admitted in the three preceding years. *Beri-beri* shows a marked decrease of cases treated. No cases occurred amongst patients in hospital. Parboiled rice was exclusively used in the hospital as in recent years.

*Dysentery.*—One hundred and seventy-nine cases were treated during the year with 77 deaths (mortality 43·02).

*Diarrhœa.*—Acute and chronic accounted for 232 cases treated with 91 deaths (mortality 39·22).

The high mortality among *Diarrhœa* and *Dysentery* cases is accounted for by the fact that most of the cases when brought in were in a practically moribund condition.

*Phthisis* also shows a high death-rate as in previous years. There was a slight falling off in the number of admissions.

*Venereal Diseases* accounted for 613 admissions with 6 deaths.



TABLE A.

*Table showing the Admissions and Deaths from the Principal Diseases in the District Hospital, Penang, for the past Four Years.*

DISEASES	1908.			1909.			1910.			1911.		
	No. of Cases Treated.	Died.	Percentage.	No. of Cases Treated.	Died.	Percentage.	No. of Cases Treated.	Died.	Percentage.	No. of Cases Treated.	Died.	Percentage.
Beri-beri	260	45	17'30	200	26	13'00	182	38	20'87	127	25	19'68
Dysentery	230	98	42'60	295	122	41'35	202	111	54'95	179	77	43'02
Malarial Fevers	495	52	10'54	460	39	8'47	428	50	11'68	647	58	8'96
Venereal Diseases	691	26	3'76	582	15	2'57	620	3	0'48	613	6	0'97
Anæmia	356	102	28'65	304	66	21'71	179	41	22'90	179	57	31'84
Phthisis	215	116	53'95	261	129	49'42	187	111	59'35	151	92	60'92
Diarrhoea	239	86	35'98	115	35	30'43	129	49	37'98	232	91	39'22

TABLE B.

*Return showing the Admissions and Deaths at the District Hospital, Penang, for Beri-beri for the Year 1911.*

NATIONALITY.	January.		February.		March.		April.		May.		June.		July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		
Chinese	7	2	4	...	16	3	17	2	6	1	11	2	3	1	9	3	6	3	2	1	11	3	5	4
Tamils	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
TOTAL	7	2	4	...	16	3	17	2	6	1	11	2	3	1	9	3	6	3	2	1	11	3	5	4
Rainfall	4.00	0.45	3.62	9.11	6.53	6.05	4.13	7.96	11.13	12.22	8.48	2.70												



TABLE C.

*Return of Venereal Diseases admitted to the District Hospital, Penang, during the Year 1911.*

Diseases.	Admissions.	Deaths.	Remarks.
Gonorrhœa ...	41	...	
Gonorrhœal Ophthalmia ...	27	...	
Do. Arthritis ...	8	...	
Do. Warts ...	1	...	
Primary Syphilis ...	45	...	
Secondary Do. ...	315	3	
Tertiary Do. ...	21	3	
Bubo ...	59	...	
Soft chancre or chancroid ...	106	...	

*Nationality Return of the District Hospital, Penang, for the Year ending 1911.*

Nationality.	Remained.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining.
Europeans ...	...	19	19	18	...	...	...	1
Eurasians ...	2	13	15	10	...	1	3	1
Chinese ...	201	2,472	2,673	1,966	39	98	336	234
Tamils ...	90	1,217	1,307	1,005	12	30	155	105
Malays ...	4	20	24	13	...	...	4	7
Islam Tamils ...	10	110	120	87	1	4	15	13
Bengalis ...	1	20	21	19	...	...	2	...
Javanese ...	...	5	5	5	...	...	...	...
Burmese ...	...	1	1	1	...	...	...	...
Arabian ...	...	1	1	...	...	...	1	...
Cabulese ...	...	1	1	1	...	...	...	...
Japanese ...	...	1	1	...	...	1	...	...
Ceylonese ...	...	6	6	4	...	...	...	2
Total ...	308	3,886	4,194	3,129	52	134	516	363

## Eye Ward, District Hospital, Penang.

REPORT BY DR. J. KIRK, *Honorary Visiting Ophthalmic Surgeon.*

There were 140 cases of Eye disease treated in this ward during the year as in-patients and 52 attended as out-patients.

An analysis of the cases is as follows :—

	<i>Cases.</i>
Acute Conjunctivitis ... ..	11
Chronic „ ... ..	3
Gonorrhœal Ophthalmia ... ..	39
Trachoma ... ..	22
Pytergium ... ..	2
Acute Keratitis ... ..	6
Interstitial Keratitis ... ..	3
Hypopyon Keratitis ... ..	1
Opacities of Cornea ... ..	10
Ulcer of Cornea ... ..	13
Marginal Ulcer of Cornea ... ..	1
Staphyloma of Cornea ... ..	3
Acute Iritis ... ..	8
Chronic Iritis ... ..	18
Irido Cyclitis Acute ... ..	7
Glaucoma ... ..	1
Simple Atrophy of Optic Nerve ... ..	10
Anæmia of Retina ... ..	4
Senile Cataract ... ..	9
Juvenile Cataract ... ..	2
Undefined Amblyopia ... ..	4
Choroiditis Syphilitica ... ..	1
Entropion ... ..	1
Ectropion ... ..	1
Tumours of Eye-lid ... ..	3
Abscess of Lachrymal gland ... ..	1
Panophthalmitis ... ..	1
Foreign bodies in Cornea ... ..	3
Myopia ... ..	2
Hypemetropia ... ..	1

There were 28 operations performed during the year, viz. :—

	<i>Cases.</i>
Removal of Pterygium ... ..	1
Iridectomy ... ..	12
Removal of Cataract ... ..	8
Enucleation of Eye-ball ... ..	1
Removal of Corneal foreign bodies ... ..	2
Cauterisation of Corneal Ulcer ... ..	3
Removal of tumour of Eye-lid ... ..	1

There were also 20 cases of subconjunctival injection performed. This method of treatment has had encouraging results in many cases of Pannus and Corneal opacity.

## Balik Pulau Hospital.

REPORT BY DR. R. DANE, *Senior Medical Officer.*

1. *Buildings and Grounds.*—Wards Nos. 1 and 2 were re-attapped. The Dressers' quarters were painted and re-roofed. The cement ditch was carried much further on to a stream.

2. *Staff.*—Throughout most of the year this hospital was in charge of a Senior Dresser, no Assistant Surgeon being available. A permanent Medical Officer is shortly to be again appointed.

3. *Work done.*—During the year 328 patients were admitted which with 31 remaining on 31st December, 1910, gives a total treated of 359. The daily average number of sick was 36.

The principal diseases were:—Ulcers 119, Malarial Fever 39, Injuries 20, Rheumatism 16, Anæmia 14, Diarrhœa 12, Phthisis 11, Chancroids 13, Syphilis 10.

4. *Mortality.*—There were 39 deaths during the year giving a mortality of 10·86 of those treated. The causes of deaths were:—Phagadæna 6, Phthisis 6, Diarrhœa 6, Chronic Bright's Disease 5, Dysentery 3, Anæmia 3, Valvular Disease of the Heart 3, Malaria 2, Pneumonia 1, Septicæmia 1, Syphilis 1, Cellulitis 1, Enteritis 1.

5. *Infectious Disease.*—There was an outbreak of Cholera—60 cases occurred with 52 deaths, the first case was reported on the 4th May and the last case on May 28th.

6. *Out-door Dispensary.*—During the year 267 visits were made by patients to the hospital.

The falling off of attendance is entirely due to the want of an Assistant Surgeon for this hospital.

*This table gives the statement of work done.*

	1911.	1910.
Number of patients ... ..	267	714
Number of visits ... ..	437	3,675
Number of indigent patients ... ..	36	114
Number of Government Servants ... ..	42	243
Number of paying patients ... ..	189	357
Number of males ... ..	205	498
Number of females ... ..	62	216
Average visit per day ... ..	1·19	8·86
Receipts for the whole year ... ..	\$30.15	\$43.50



*Nationalities of those treated.*

				1911.			1910. TOTAL.
				Males.	Females.	Total.	
Europeans	...	...	...	...	...	...	5
Eurasians	...	...	...	2	1	3	8
Chinese	...	...	...	128	43	171	411
Malays	...	...	...	38	10	48	125
Natives of India	...	...	...	37	7	44	154
Others	...	...	...	...	1	1	11
Total				205	62	267	714

*Nationality Return of the District Hospital, Balik Pulau, for the Year 1911.*

		Remained.		Admitted.		Total.		Discharged.		Transferred.		Absconded.		Died.		Remaining.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Chinese	...	25	1	224	1	249	2	185	2	4	...	4	...	30	...	25	...
Tamils	...	3	...	79	2	82	2	69	1	2	...	1	...	8	1	2	...
Malays	...	2	...	22	...	24	...	24	...	...	...	...	...	...	...	1	...
Total	...	30	1	325	3	355	4	278	3	6	...	5	...	38	1	28	...

**Lumut Hospital, Dindings.**REPORT BY DR. R. DANE, *Senior Medical Officer.*

*Buildings.*—The annual whitewashing and petty repairs of the wards and out-houses have been attended to.

*Work done.*—Four hundred and seventy-seven cases were admitted during the year, 12 remained from the previous year, making a total of 489 cases treated. This is 169 more than the previous year. The principal disease treated was Malarial Fever 178 (104 cases from Sitiawan and 74 cases from the District of Dindings). The average daily sick was 13.

*Mortality.*—There were 56 deaths during the year, of this number 19 died within 48 hours of admission. The causes of death in the 56 fatal cases are Malaria 12, Anæmia 12, Dysentery 10, Beri-beri 5, Phagedæna 3, Phthisis 3, Acute Nephritis 2, Debility 2, Chronic Malaria 1, Tuberculosis 1, Chronic Bronchitis 1, Broncho Pneumonia 1, Enteritis 1, Abscess of the Liver 1 and Bright's Disease 1. The percentage of deaths to total treated was 11.45. The percentage to total treated, excluding those dying within 48 hours of admission, was 7.87.

The admissions and deaths were made up as follows :—

			<i>Admissions.</i>	<i>Deaths.</i>
District of Dindings ...	...	...	169	12
Sitiawan, Lower Perak ...	...	...	320	44
			<hr/>	<hr/>
Total ...			489	56
			<hr/>	<hr/>

*Infectious Diseases.*—Fourteen cases of Small-pox occurred in the District with 1 death.

*Police.*—The health of the Malay Contingent has been good. There were 8 admissions to the hospital and 32 were treated as out-patients. No deaths occurred among them.

The general health of the population in Lumut has been satisfactory.

### Leper Asylum, Pulau Jerejak.

REPORT BY DR. J. C. C. FORD, *Medical Officer-in-Charge.*

1. <i>Statistics.</i> —Remained on 31st Decem-ber, 1910	...	...	...	{ Colonial 209 Perak 176 }	385
Admitted during 1911	...	...	...	{ Colonial 76 Perak 90 Selangor 50 }	216
					<hr/>
			Total inmates	...	601
					<hr/>
Discharged (Repatriated to India)	...	...	Colonial	3	3
Transferred (Malay Asylum, Pangkor Laut)	...	...	...	Colonial 3	3
Absconded	...	...	...	{ Colonial 11 Perak 6 }	17
Died	...	...	...	{ Colonial 86 Perak 54 Selangor 17 }	157
Remaining on 31st December, 1911	...	...	...	{ Colonial 182 Perak 206 Selangor 33 }	421

The average daily number of inmates was 412. The percentage of deaths was 26·12. One Chinese leper (Perak) committed suicide by hanging.

2. *Visits.*—Official visits were made during the year by :—

- (1) His Excellency the Governor.
- (2) The Hon'ble Resident Councillor, Penang.
- (3) The Hon'ble Principal Civil Medical Officer, S. S.
- (4) The Hon'ble Colonial Engineer.

Other visitors were the Bishop of Malacca and Dr. R. ROMER of Deli (Sumatra).

Towkays GOH TAIK CHEE and GOH SOON CHENG presented each leper with a small sum of money at the Chinese New Year ; this amount was supplemented by a donation from the Anti-Mendicity Fund.

3. *Personnel.*—Mr. J. R. BRUCE continued as Assistant Surgeon. Colonial Dresser LEE CHIN TEE resigned on 8th December, 1911, and was succeeded by apprentice Dresser J. B. SEATON on 18th December. Perak Dressers A. KANAPATHY PILLAY and S. S. MANIAN replaced Dressers A. ARULAMPALAM and S. SAMUEL, transferred to Perak. Selangor Dresser S. P. JOSEPH was transferred and relieved by Dresser M. SINNATAMBY.

4. The tables appended are :—

Table *A*.—Giving the number of admissions, total number of inmates, the number of deaths, and the daily average for the last 22 years.

Table *B*.—Showing the admissions, deaths, discharges and abscondments among Colonial, Perak and Selangor lepers in each month.

Table *C*.—Giving the nationality of the inmates.

Table *D*.—Showing occupation of inmates previous to admission.

TABLE *A*.

Years.		Remained from previous years.	ADMISSIONS.			Total.	Deaths.	Percentage of deaths.	Daily Average.
			Colonial.	Perak.	Selangor.				
1890	...	160	137	129	...	426	91	21·36	183·33
1891	...	221	132	...	...	353	123	34·84	195·07
1892	...	187	178	110	...	475	122	25·68	282·96
1893	...	310	118	4	...	432	87	20·13	307·80
1894	...	321	111	60	...	492	129	26·21	311·18
1895	...	332	121	34	...	487	146	29·97	313·06
1896	...	301	145	24	...	470	136	28·93	303·37
1897	...	286	152	...	...	438	130	29·68	278·64
1898	...	253	152	16	...	421	123	29·21	262·10
1899	...	247	123	20	...	390	142	36·41	239·15
1900	...	214	97	59	...	370	115	31·08	214·15
1901	...	233	80	29	...	342	88	25·73	233·35
1902	...	235	84	33	...	352	73	20·73	243·27
1903	...	244	119	71	...	434	84	19·35	264·53
1904	...	334	92	42	...	468	140	29·91	311·02
1905	...	282	148	36	...	466	78	16·73	319·73
1906	...	357	107	32	...	496	138	27·82	344·30
1907	...	336	100	52	...	488	110	22·54	361·74
1908	...	356	98	52	...	506	107	21·15	383·73
1909	...	370	90	117	...	577	134	23·22	396·67
1910	...	420	97	94	...	611	186	30·44	413·83
1911	...	385	76	90	50	601	157	26·12	404·73



TABLE B.

*Showing the Admissions, Deaths, Discharges and Abscondments among Colonial, Perak and Selangor Lepers in each Month.*

MONTHS.	Total Admissions.	ADMISSIONS.			Deaths.			Discharged.		Transferred.		Absconded.	
		Colonial.	Perak.	Selangor.	Colonial.	Perak.	Selangor.	Colonial.	Perak.	Colonial.	Perak.	Colonial.	Perak.
January ...	13	13	...	...	7	3	...	1	...	...	...	...	3
February ...	30	1	29	...	4	5	...	1	...	...	...	...	...
March ...	2	2	...	...	4	6	...	1	...	...	...	1	1
April ...	6	5	1	...	7	3	...	...	...	...	...	3	1
May ...	13	13	...	...	4	5	...	...	...	...	...	1	...
June ...	4	4	...	...	12	1	...	...	...	2	...	...	...
July ...	55	5	...	50	4	6	1	...	...	...	...	...	1
August ...	5	5	...	...	13	5	8	...	...	...	...	1	...
September ...	34	4	30	...	9	4	2	...	...	...	...	3	...
October ...	14	14	...	...	5	7	1	...	...	...	...	2	...
November ...	7	7	...	...	8	3	4	...	...	1	...	...	...
December ...	33	3	30	...	9	6	1	...	...	...	...	...	...
Total ...	216	76	90	50	86	54	17	3	...	3	...	11	6

TABLE C.

SHOWING THE NATIONALITIES OF INMATES.

Nationalities.						Number.
Chinese	Hokkien	...	...	...	...	80
	Teichiu	...	...	...	...	72
	Cantonese	...	...	...	...	215
	Kheh	...	...	...	...	123
	Hailam	...	...	...	...	33
	Kow Chu	...	...	...	...	2
	Lui Chu	...	...	...	...	3
Arab	...	...	...	...	...	1
Bengali	...	...	...	...	...	1
Malays	...	...	...	...	...	7
Achinese	...	...	...	...	...	1
Eurasian	...	...	...	...	...	1
Tamil, Islam	...	...	...	...	...	2
Tamils	...	...	...	...	...	59
Javanese	...	...	...	...	...	1
Total						601

TABLE D.

## SHOWING THE OCCUPATION OF INMATES.

Barber	...	...	...	...	9
Basket-maker	...	...	...	...	3
Blacksmith	...	...	...	...	9
Beggar	...	...	...	...	4
Boy	...	...	...	...	2
Boatman	...	...	...	...	2
Butcher	...	...	...	...	3
Carpenter	...	...	...	...	22
Cart-driver	...	...	...	...	6
Cook	...	...	...	...	12
Cake-seller	...	...	...	...	2
Dhoby	...	...	...	...	1
Engine-driver	...	...	...	...	1
Fitter	...	...	...	...	1
Fireman	...	...	...	...	1
Fisherman	...	...	...	...	6
General coolie	...	...	...	...	222
Gardener (vegetable)	...	...	...	...	42
Goldsmith	...	...	...	...	1
Gilder	...	...	...	...	1
Hawker	...	...	...	...	2
Mason	...	...	...	...	9
Miner (tin)	...	...	...	...	142
Painter	...	...	...	...	4
Planter	...	...	...	...	13
Post-peon	...	...	...	...	1
'Rikisha puller	...	...	...	...	11
Shopkeeper	...	...	...	...	4
Shoe-maker	...	...	...	...	1
Sailor	...	...	...	...	3
Tailor	...	...	...	...	4
Toty	...	...	...	...	1
Trader	...	...	...	...	11
Tinsmith	...	...	...	...	2
Woodcutter	...	...	...	...	20
Nil.	...	...	...	...	23
Total					601

*List of Nationalities, Leper Asylum, Pulau Jerejak, for the Year 1911.*

Nationalities.	Remained.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining.	Remarks.
Eurasian ...	1	...	1	...	...	...	...	1	
Tamils ...	42	17	59	2	...	2	16	39	
Chinese ...	332	197	529	...	...	15	139	375	
Arab ...	1	...	1	...	...	...	...	1	
Bengali ...	1	...	1	1	...	...	...	...	
Malays ...	5	2	7	...	3	...	1	3	
Achinese ...	1	...	1	...	...	...	1	...	
Tamil, Islam ...	2	...	2	...	...	..	...	2	
Total ...	385	216	601	3	3	17	157	421	

**Female District Hospital.**REPORT BY DR. J. S. WEBSTER, *Medical Officer.*

1. Throughout the year all the patients in this hospital have been lodged in a ward on the lower storey of the Female ward. It is proposed to cement the floor of this ward during the coming year since many of the patients have very filthy habits.

2. New latrines were erected for this ward, together with two new bathrooms and they are connected with the building by means of a covered way.

3. Electric light has also been installed. It is a great improvement.

4. During the year there have been 247 admissions with 52 deaths. Many patients arrived in a moribund condition.

5. The patients have consisted almost entirely of Tamils and Chinese, especially the former.

**Female Leper Ward, Jelutong.**

There were 18 cases remaining at the beginning of the year, none were admitted during 1911 and but 1 death occurred.

These patients will shortly be removed to the wards built for them at the Old Quarantine Station, Pulau Jerejak.



## APPENDIX C.

## PROVINCE WELLESLEY.

REPORT BY DR. E. D. WHITTLE, *Medical Officer*.

1. On an estimated mean population of 129,341, the birth-rate in 1911 was 29·28 and the death-rate 30·76 per mille.

2. The admissions to the three Government Hospitals numbered 3,099, as compared with 3,046 in 1910 and 2,696 in 1909.

The death-rate per cent was 12·19 as against 11·65 in 1910 and 12·68 in 1909.

3. The public health throughout the year was good with the exception of an epidemic of Small-pox in the Central Province which cost 53 lives.

The spread of the epidemic was facilitated by the concealment of Small-pox patients.

About half a dozen convictions were obtained for this offence.

A similar epidemic occurred later in the year amongst the waterside labourers of the Prye River.

The accompanying table shows the relationship of the case mortality throughout the Province during the year to the presence or absence of vaccination marks:—

			Cases.	Deaths.	Per cent.
			—	—	—
Vaccinated	...	...	198	15	7·57
Unvaccinated	...	...	157	63	40·12
			—	—	—
Total	...	...	355	78	22·03
			—	—	—

4. The water supply from Bukit Seraya has been of good quality.

The reservoir is being enlarged.

The analysis of the water from Bukit Panchor are very definitely condemnatory.

A filter scheme of Jewell type is being prepared.

5. Dr. SHEPPARD was in charge till July 4th, when I took over from him.

Assistant Surgeons SINHA and DUTTA were on duty at Bukit Mertajam and Sungai Bakap, respectively, throughout the year. Mr. DE SOUZA relieved Mr. NICKELSEN at Butterworth on 7th September, 1911.

## Butterworth Hospital.

1. *Buildings*.—The buildings underwent limewashing, and minor repairs during the year. The roof of the main ward in the Quarantine Camp was re-attapped.

2. *Staff*.—Assistant Surgeon R. W. NICKELSEN was transferred to the District Hospital, Penang, on the 7th September, 1911; and was relieved by Assistant Surgeon C. T. DE SOUZA. Dresser FRANCIS died on the 6th February, 1911. His place was filled by Dresser V. L. BOUDVILLE.

3. *Work done*.—The following figures represent the work done during the year:—

Remained from 1910	...	...	...	31
Admitted during 1911	...	...	...	768
Total treated	...	...	...	799
Average daily number of sick	...	...	...	44·75
Discharged	...	...	...	654
Transferred	...	...	...	2
Absconded	...	...	...	4
Died	...	...	...	108
Percentage of deaths to total treated	...	...	...	15·31
Percentage of deaths to total treated excluding those dying within 48 hours of admission	...	...	...	11·45

*The principal diseases treated were:—*

Abscess	...	...	...	...	21
Anæmia	...	...	...	...	23
Beri-beri	...	...	...	...	23
Bronchitis	...	...	...	...	18
Diarrhœa	...	...	...	...	36
Dysentery	...	...	...	...	35
Injuries	...	...	...	...	86
Malarial Fever	...	...	...	...	58
Phthisis	...	...	...	...	18
Pyrexia	...	...	...	...	29
Ulcers	...	...	...	...	90
Venereal Diseases	...	...	...	...	67

The total treated is 79 less than in 1910.

4. The list of operations is incomplete, but among the more important were the following:—

Amputation, arm	...	...	...	...	1
Circumcision	...	...	...	...	10
Exploratory laparotomy	...	...	...	...	1
Extraction of teeth	...	...	...	...	1
Extraction of cataract	...	...	...	...	2
For Cut throat	...	...	...	...	1
Forceps delivery	...	...	...	...	1
Incision abscess	...	...	...	...	14
Paracentesis abdominis	...	...	...	...	3
Reduction of dislocation hip	...	...	...	...	1
Scraping ulcers	...	...	...	...	2
Skin grafting	...	...	...	...	1
Spinal injection	...	...	...	...	1
Suture of wounds of abdominal wall	...	...	...	...	2
					—
Total					41
					—

A microscopical examination of the blood in all fever cases has been carried out throughout the year. The stools of a large number of patients have been microscopically examined.

5. *Vaccination*.—Four thousand two hundred and thirty-three cases vaccinated during the year of which 2,164 were emergency cases. The percentage of failures was 90.9.

6. *Police Cases*.—The number of Police cases treated during the year was 129.

7. *Necropsies*.—Fifty-three (22 Medico-legal) were made during the year.

8. *Out-door Dispensary*.—The number of patients treated at the Out-door Dispensary was 1,138, as against 1,139 in 1910. The receipts amounted to \$182.19, as against \$83.82 in 1910. Those treated included:—

					Males.	Females
					—	—
Europeans	...	...	...	...	53	28
Eurasians	...	...	...	...	67	43
Chinese	...	...	...	...	290	14
Malays	...	...	...	...	184	33
Indians	...	...	...	...	350	68
Others	...	...	...	...	7	1
					—	—
Total					951	187
					—	—

*The principal diseases treated were:—*

Anæmia	...	...	...	...	25
Bronchitis	...	...	...	...	123
Diarrhœa	...	...	...	...	37
Dysentery	...	...	...	...	4
Fevers	...	...	...	...	200
Injuries	...	...	...	...	115
Ulcers	...	...	...	...	251
Venereal Diseases	...	...	...	...	52

9. *Quarantine Camp.*—There were no patients in the Quarantine Camp at the beginning of the year.

During the year the following diseases were treated:—

Chicken-pox	...	...	...	...	3
Measles	...	...	...	...	2
Small-pox	...	...	...	...	10 with 3 deaths

making a total of 15 treated.

### Bukit Mertajam Hospital.

1. A new corrugated iron roof has been put on the Contagious Diseases Ward. Its walls are to be renewed.

2. Dresser KANDIAH was replaced by Dresser SAMUEL on the 29th August.

3. The following figures briefly summarise the work done:—

Remaining from 1910	...	...	...	...	25
Admitted during 1911	...	...	...	...	1,429
Total treated	...	...	...	...	1,454
Average daily number of sick	...	...	...	...	52.57
Discharged	...	...	...	...	1,244
Transferred	...	...	...	...	4
Absconded	...	...	...	...	17
Died	...	...	...	...	139
Percentage of deaths to total treated	...	...	...	...	9.56
Percentage of deaths to total treated excluding those dying within 48 hours of admission	...	...	...	...	8.04

The total treated is 225 in excess of the total for 1910.

4. The principal diseases treated were:—

Ankylostomiasis	...	...	...	...	42
Beri-beri	...	...	...	...	24
Bright's Disease	...	...	...	...	38
Cirrhosis of liver	...	...	...	...	19
Dysentery	...	...	...	...	76
Injuries	...	...	...	...	72
Malaria	...	...	...	...	216
New growth (malignant)	...	...	...	...	10
Phthisis	...	...	...	...	28
Pneumonia	...	...	...	...	7
Valvular Disease of heart	...	...	...	...	38
Venereal Diseases	...	...	...	...	182



## 5. The following operations were performed during the year:—

Arthrectomy of joints	...	...	...	...	4
Discission of cataract	...	...	...	...	1
Enterorrhaphy	...	...	...	...	1
Extraction of cataract	...	...	...	...	3
Incision and drainage of hepatic abscess	...	...	...	...	1
Iridectomy	...	...	...	...	1
Laminectomy	...	...	...	...	2
Laparotomy for appendicitis	...	...	...	...	1
Plastic operation	...	...	...	...	2
Removal of lymphadenoma	...	...	...	...	2
Removal of sarcoma chest	...	...	...	...	1
Removal of retained placenta	...	...	...	...	1
Removal of sarcoma neck	...	...	...	...	1
Sequestrotomy	...	...	...	...	7
Suturing of divided larynx	...	...	...	...	1
Urethrotomy	...	...	...	...	1

## In addition to these:—

Aspiration of knee joint	...	...	...	...	1
Aspiration of pleural cavity	...	...	...	...	6
Circumcision	...	...	...	...	18
Carbuncle	...	...	...	...	2
Dilatation of stricture	...	...	...	...	2
Exploration of liver	...	...	...	...	1
Enucleation of glands in groin	...	...	...	...	20
Incision of abscess	...	...	...	...	32
Ligature and excision of internal piles	...	...	...	...	1
Paracentesis of abdomen	...	...	...	...	24
Removal of dermoid cyst	...	...	...	...	1

6. *Out-patient Department.*—The number of patients treated were 2,852, against 2,254 in 1910. The receipts amounted to \$420.90, against \$312.95 for 1910.

## The principal diseases treated were:—

Bronchitis	...	...	...	...	125
Conjunctivitis	...	...	...	...	34
Dysentery and Diarrhœa	...	...	...	...	71
Dyspepsia	...	...	...	...	60
Injuries	...	...	...	...	163
Malaria	...	...	...	...	256
Phthisis	...	...	...	...	21
Parasites	...	...	...	...	139
Pyrexia	...	...	...	...	274
Ulcers	...	...	...	...	743
Venereal Diseases	...	...	...	...	259

## The nationalities of the patients were:—

Europeans	...	...	...	...	32
Eurasians	...	...	...	...	86
Chinese	...	...	...	...	1,661
Malays	...	...	...	...	241
Indians	...	...	...	...	815
Others	...	...	...	...	17

7. *Medico-legal*.—Twenty-two autopsies were performed on the bodies brought by the Police. The Assistant Surgeon had also to inspect bodies with the Coroner at their respective places of death on several occasions.

Medical evidence was required in different Courts about fifty times during the year.

8. *Vaccination*.—Out of 1,806 vaccinations performed in all, 887 were emergency vaccinations for the epidemic. Of these 1,708 were inspected with the result that 81·85 per cent were perfect and 10·53 per cent failed.

9. *Epidemic of Small-pox*.—The epidemic of Small-pox of last year continued for the major portion of this year. There were 231 cases in this District with 54 deaths. Of these 159 occurred from January to April, 2 in May, 7 in June, 55 in July and August, 2 in September, nil. in October, 5 in November and 1 in December.

Localities most effected were:—

Goa Prau ...	...	...	...	...	37 cases.
Bukit Mertajam	...	...	...	...	36 „
Tanah Liat ...	...	...	...	...	27 „
Cherok Tokun	...	...	...	...	18 „
Mengkuang	...	...	...	...	15 „
Mengkuang (Goa Prau)	...	...	...	...	13 „
Permatang Pasir	...	...	...	...	9 „

Varieties of the disease with mortality:—

				Cases.	Deaths.
				—	—
Confluent ...	...	...	...	101	43
Discrete ...	...	...	...	77	10
Modified ...	...	...	...	53	1
				—	—
			Total ...	231	54
				—	—

The table showing the relation of the incidence of Small-pox to the presence or absence of vaccination marks in the attached:—

			Confluent.	Discrete.	Modified.
			—	—	—
With 3 scars	...	...	8	14	23
With 2 scars	...	...	6	13	10
With 1 scar	...	...	3	8	5
With indistinct scar	...	...	22	18	10
With no scars	...	...	62	24	5
			—	—	—
		Total ...	101	77	53
			—	—	—

### Sungai Bakap Hospital.

1. *Buildings and Ground*.—Both in good order.

2. *Staff*.—The staff remained unchanged except that junior Dresser A. KANDIAH succeeded SAMUEL who was transferred to Bukit Mertajam Hospital in August, 1911.

3. *Work done* :—

Remaining from 1910	...	...	...	35
Admitted during 1911	...	...	...	902
Total treated	...	...	...	937
Average daily number of sick	...	...	...	39'48
Discharged	...	...	...	767
Transferred	...	...	...	...
Absconded	...	...	...	5
Died	...	...	...	131
Percentage of deaths to total treated	...	...	...	13'98
Percentage of deaths to total treated excluding those dying within 48 hours of admission	...	...	...	10'54

There were 79 cases of Malarial Fever with 8 deaths and 37 cases of Pulmonary Tuberculosis with 14 deaths.

Diagnosis in all cases being verified by microscopic examination. Eight cases of Beri-beri with no deaths. All cases of Beri-beri contracted the disease from outside the hospital.

The total treated is 120 less than in 1910.

*Operations*.—There were 62 cases of major and minor operations with 4 deaths. No death occurred under general anæsthesia.

The principal diseases treated in the hospital with deaths :—

				<i>Cases treated.</i>	<i>Deaths.</i>
				—	—
Anæmia	...	...	...	22	6
Ankylostomiasis	...	...	...	68	14
Beri-beri	...	...	...	8	nil.
Bright's Disease	...	...	...	5	1
Cholera	...	...	...	4	3
Diarrhœa	...	...	...	22	11
Dysentery	...	...	...	80	36
Malarial Fever	...	...	...	79	8
Phthisis	...	...	...	37	14
Pneumonia	...	...	...	9	4
Syphilis	...	...	...	90	nil.
Ulcer	...	...	...	112	nil.

### Out-door Dispensary.

4. Six hundred and fifty-one patients were treated during the year. The collection amounted to \$80.60 as compared with 540 patients and \$76.85 in 1910.

5. *Vaccination*.—Seven hundred and seventy-two children were vaccinated with 60 failures. The percentage of failures being 7'77.

6. *Police*—The health of the police has been good. Seven admissions during the year with no deaths.



7. *Public Health*.—The health of the district has been fairly good. No outbreak of any of the epidemic diseases this year except one or two imported cases of cholera and small-pox. Two of the hospital inmates were infected with cholera by a patient who was brought here for admission although he was immediately removed to the Quarantine Camp and the place disinfected.

8. *Work done by the Public Works Department*.—Minor repairs to the buildings and out-houses.

9. *Rainfall*.—The total rainfall this year was 68·48".

10. *Medico-legal*.—Two hundred and sixty-seven persons sent for treatment by the Police, 43 bodies by the Coroner for post-mortem examination and 5 persons for observation as to sanity.

### Estate and Estates Hospitals.

There are now some thirty estates to be visited by the Medical Officer, Province Wellesley, a task only possible while the service car is in good order. Improvement in the care of the coolies is noticed on most of the estates. Some are slow to move. Bertam and Batu Kawan are the most progressive. The Dressers, working under certain disadvantages, have done their duties well.

1. *Bertam Estate*.—Good progress has been made in the re-housing of the coolies in permanent lines of improved type.

The drinking water is served by taps from a tank, the supply from which is pure but of small quantity.

The precincts of the lines are polluted, latrines are to be provided.

Average number of coolies resident on estate in 1911: Tamils 792, Javanese 24 and Chinese 717.

Number of admissions to hospital	...	...	...	672
Number of deaths in hospital	...	...	...	30
Percentage of deaths to total coolie population	...	...	...	1'95

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	...	19
Bowel disorders	...	...	...	99
Malarial „	...	...	...	10
Phthisis	...	...	...	4
Ulcers	...	...	...	102
Venereal disorders	...	...	...	32

2. *Malakoff Estate*.—A new hospital and a new cooly line have been built on this estate. Drinking water is obtained from bricked wells by dippers.

Average number of coolies resident on estate in 1911 :—Tamils 623, Javanese 312 and Chinese 58.

Number of admissions to hospitals	...	...	...	965
Number of deaths in hospital	...	...	...	20
Percentage of deaths to total coolie population	...	...	...	2'01

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	...	24
Bowel disorders	...	...	...	118
Malarial „	...	...	...	13
Phthisis	...	...	...	1
Ulcers	...	...	...	380
Venereal disorders	...	...	...	103

3. *Prye Estate*.—The coolies have been re-housed in lines of improved type.

Latrines are now provided. Care has been taken in the upkeep and improvement of the hospital. Water supply by taps from a hill reservoir.

Average number of coolies resident on estate in 1911 :—Tamils 740, Javanese 407 and Chinese 96.

Number of admissions to hospital	...	...	... 1,204
Number of deaths in hospital	...	...	... 33
Percentage of deaths to total coolie population	...	...	... 2·65

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	... 69
Bowel disorders	...	...	... 161
Malarial „	...	...	... 5
Phthisis	...	...	... 6
Ulcers	...	...	... 308
Venereal disorders	...	...	... 71

4. *Batu Kawan Estate*.—A new hospital has been built and the coolies in the great part re-housed in lines of improved type. Ingenious latrines are installed to the great betterment of the health of the coolies. Drinking water from taps supplying sand filtered water from a hill reservoir and in part from rain water collected in properly screened tanks.

Average number of coolies resident on estate in 1911 :—Tamils 651, Javanese 423 and Chinese 432.

Number of admissions to hospital	...	...	... 1,206
Number of deaths in hospital	...	...	... 38
Percentage of deaths to total coolie population	...	...	... 2·52

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	... 20
Bowel disorders	...	...	... 52
Malarial „	...	...	... 42
Phthisis	...	...	... 6
Ulcers	...	...	... 416
Venereal disorders	...	...	... 31

5. *Val d'or Estate*.—The new hospital was occupied early in the year, its infectious ward fell down later. The health of the estate is fair. The water supply is by dippers from tanks that contain water too hard to be palatable. Water is imported in casks and collected from the trees during rain storms. Water holes are dug wherever there appears an opportunity of obtaining a palatable supply. This estate must tackle this problem next year.

Average number of coolies resident on estate in 1911 :—Tamils 119, Javanese 186 and Chinese 41.

Number of admissions to hospital	...	...	... 271
Number of deaths in hospital	...	...	... 6
Percentage of deaths to total cooly population	...	...	... 1·73

The principal diseases treated were :—

Ankylostomiasis and Anæmia	...	...	... 3
Bowel disorders	...	...	... 32
Malarial „	...	...	... ..
Phthisis	...	...	... ..
Ulcers	...	...	... 59
Venereal disorders	...	...	... 34

6. *Bakap Plantation*.—The health of this estate has improved during the year. The water supply is from shallow wells of poor design.

Average number of coolies resident on estate in 1911 :—Tamils 292.

Number of admissions to hospital	...	...	...	678
Number of deaths in hospital	...	...	...	14
Percentage of deaths to total coolie population	...	...	...	4·89

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	...	9
Bowel disorders	...	...	...	111
Malarial „	...	...	...	2
Phthisis	...	...	...	...
Ulcers	...	...	...	77
Venereal disorders	...	...	...	29

7. *Caledonian Estate*.—Some general improvement in the condition of the coolies of this estate has been shown during the year. Latrines are improved.

The water supply from Nibong Tebal reservoir has given rise to many complaints. A new hospital has been started on a fresh site.

Average number of coolies resident on estate in 1911 :—Tamils 2,277, Javanese 714 and Chinese 699.

Number of admissions to hospital	...	...	...	2,433
Number of deaths in hospital	...	...	...	183
Percentage of deaths to total coolie population	...	...	...	4·96

The principal diseases treated :—

Ankylostomiasis and Anæmia	...	...	...	22
Bowel disorders	..	...	...	631
Malarial „	...	...	...	224
Phthisis	...	...	...	11
Ulcers	...	...	...	494
Venereal disorders	...	...	...	75

8. *Byram Estate*.—Some new and improved lines have been erected. The diminution in the number of cases of bowel disorders last year anticipated by Dr. SHEPPARD from the installation of tap water supply has been remarkable; 279 cases in 1911 as compared with 509 in 1919.

Average number of coolies resident on estate in 1911 :—Tamils 461, Javanese 672 and Chinese 262.

Number of admissions to hospital	...	...	...	954
Number of deaths in hospital	...	...	...	41
Percentage of deaths to total coolie population	...	...	...	2·93

The principal diseases treated :—

Ankylostomiasis	...	...	...	18
Bowel disorders	...	...	...	279
Malarial „	...	...	...	88
Phthisis	...	...	...	3
Ulcers	...	...	...	111
Venereal disorders	..	...	...	133



*Return of Venereal Diseases treated in Province Wellesley Hospitals for 1911.*

Diseases.	1910.						1911.						Remarks.			
	Remained.			Admitted.			Remained.			Admitted.				Died.		
Syphilis, Primary ...	2	...	2	17	3	20	...	...	...	...	26	...	26	...	...	
Do. Secondary ...	6	2	8	154	5	159	3	...	3	4	...	4	183	5	188	...
Do. Tertiary ...	1	...	1	12	1	13	...	...	...	1	1	2	15	...	15	...
Gonorrhoea ...	3	...	3	52	6	58	...	...	...	2	1	3	77	17	94	...
Chancroids ...	1	1	2	44	2	46	...	...	...	...	...	...	51	1	52	...
Total ...	13	3	16	279	17	296	3	...	3	7	2	9	352	23	375	...

## APPENDIX D.

**Malacca.**REPORT BY DR. A. H. KEUN, *Medical Officer.*

Revenue	...	...	...	\$8,839.96
Expenditure	...	...	...	\$61,721.37

*Birth-rate.*—The total number of births registered in 1911 was 3,942 (males 1,993, females 1,949) showing a decrease of 513 to 1910, when there were males 2,339, females 2,116. This with the population obtained at the last census taken on 10th March, 1911, shows a birth-rate of 31.77 per mille, compared with 45.04 per mille, in 1910, and 41.03 per mille, in 1909.

The population is comprised as follows:—

Europeans	...	...	...	...	303
Eurasians	...	...	...	...	1,586
Malays	...	...	...	...	78,813
Chinese	...	...	...	...	35,450
Indians	...	...	...	...	7,500
Others	...	...	...	...	429
Total					124,081

Table giving sexes of births of different nationalities:—

				<i>Males.</i>	<i>Females.</i>
Europeans	...	...	...	3	2
Eurasians	...	...	...	24	33
Chinese	...	...	...	340	335
Malays	...	...	...	1,536	1,497
Tamils	...	...	...	45	34
Others	...	...	...	45	48
...				1,993	1,949
Total				3,942	

*Death-rate.*—The number of deaths recorded in 1911 was 7,159 (males 4,981, females 2,178) as contrasted with 5,188, in 1910 and 4,085, in 1909.

Table giving sexes of deaths of different nationalities:—

				<i>Males.</i>	<i>Females.</i>
Europeans	...	...	...	2	0
Eurasians	...	...	...	37	30
Chinese	...	...	...	2,250	246
Malays	...	...	...	1,856	1,657
Tamils	...	...	...	715	201
Others	...	...	...	121	44
...				4,981	2,178
Total				7,159	

*Public Health.*—The general health of the Settlement judging by the statistics given above was most unsatisfactory. Last year was a record year for unhealthiness and for epidemics of Malaria and Small-pox. Severe outbreaks of Malarial Fever occurred throughout the Settlement, and Estates which had never had Malaria before showed a severe incidence. March, April, May, June, July, August and September saw the disease at its worse. During these months the admissions into the Government Hospitals were greatly increased. The outbreak was general in town as well as country. Streets where Malaria was formerly little known, *e. g.*, Heeren Street, Fort Terrace, Jonker Street had several cases of locally contracted disease. With the view of destroying the breeding places of mosquitos, the Sanitary Inspectors were instructed to pay particular attention to receptacles for water and

to instruct householders to destroy or remove tins, vessels, broken bottles, etc., likely to hold stagnant water. With frequent inspections the mosquito pest gradually decreased and it is now part of the ordinary routine of the Sanitary Inspectors to examine all likely breeding places of mosquitoes. From 123 admissions for Malarial Fever into Durian Daun Hospital in February, it rose to 146 in March, 228 in April, 278 in May, 272 in June, 267 in July, 196 in August, 188 in September. These figures are quoted to show that the increased admissions to hospital would imply increased prevalence in the Settlement. The great majority were of the malignant type. Coma and Dysentery were frequent complications. Free quinine distribution was adopted. Gurus and Police Stations were supplied with quinine with instructions as to the quantity to be used. Small spoons to hold 5 grains were given to all gurus, etc. Quinine was also supplied free of charge at the different dispensaries.

*Small-pox.*—During the year Small-pox continued throughout the Settlement occurring sporadically in different districts at different times. In all 558 cases were reported with 173 deaths giving a percentage mortality of 31·00 which compare favourably with death-rates from similar epidemics in other places. As in 1910 the majority of cases occurred in the Alor Gajah district, viz., 252 cases with 60 deaths (*i.e.*, a percentage of 23·80). The Central District had 213 cases with 84 deaths (39·43 per cent.) The Jasin District 93 cases with 29 deaths (31·18 per cent).

In several districts severe outbreaks occurred thus at:—

Sungai Bahru	36	cases	with	9	deaths.
Taboh Naning	22	„	„	6	„
Kuala Linggi	47	„	„	8	„
Chin Chin	8	„	„	4	„

I append a Table showing various incidence of sex, age, nationality and vaccination marks.

It is interesting to note that the several outbreaks showed a higher mortality among unvaccinated people. The fact that it was chiefly the unvaccinated or not recently vaccinated people who were chiefly affected led to our vaccination campaign being more successful. In most cases the Malays themselves realized this and begged for the operation to be done on them.

With the view of pushing on the vaccinations among the Malays who were the people chiefly affected with Small-pox (Malays 416 cases, Chinese 95, Tamils 26, Eurasians 19, Burmese 1, Sikh 1) Gurus in Vernacular Schools were taught to vaccinate and were provided with lancet, lymph, etc., for vaccinating in their respective districts. Returns of their results were submitted monthly while cases vaccinated by them were inspected by some of the Medical staff. Twenty cents were given for each successful case. The frequent inspection kept the returns accurate. In all some 8,241 vaccinations were performed by them with 5,522 successful ones. These results are very satisfactory as they reach a class of people who are very difficult to get at, as nearly all Malays have a dislike to vaccinations which they accuse of bringing on several diseases and even of producing Small-pox, besides incapacitating them from work from the vaccination, complications, *e.g.*, fever, inflamed arms and glands, etc. As most of the vaccinations were done in open streets, market places, common lodging-houses, etc., they were unable to be examined afterwards, hence the large number of those returned as not seen.

The nationalities of those vaccinated were:—

				<i>Town.</i>	<i>Country.</i>
				—	—
Europeans	...	...	...	25	33
Eurasians	...	...	...	1,022	17
Malays	...	...	...	3,694	11,602
Chinese	...	...	...	17,567	5,109
Indians	...	...	...	2,078	1,555
Others	...	...	...	290	90
				24,676	18,406
				43,082	



*Municipality.*—The number of births within Municipal limits was 627 (males 319, females 308), as against 659 (males 337, females 322) in 1910.

The number of deaths was 1,223 (males 924, females 299), as against 879 (males 571, females 308) in 1910. The infantile mortality was 238 in children under one year of age, giving a percentage mortality of 37·95 to the total births.

### Durian Daun Hospital.

*Work done—Buildings.*—Many minor repairs were done to kitchen and wards including the replacement of many old beams by new ones on the roofs of several wards.

*Hospital staff.*—Mr. WHEATLEY, Senior Assistant Surgeon, continued throughout the year and his work was as usual highly satisfactory. Assistant Surgeon DE CRUZ who was in the early part of the year placed on Small-pox duty at Alor Gajah returned to his ordinary hospital duties on May 8th and did very good work.

*Dressers.*—R. NUNIS and WEE KIAT SWEE continued throughout the year. There was one resignation, viz., M. DANKER in May. Three Junior Apprentice Dressers viz., MOHAMED bin ABDUL GHANI, A. GOMES and TAN KANG HYE were taken into the service in September and were all stationed at Durian Daun Hospital. I have to record two deaths among dressers during the year, viz., I. DE SOUZA, who while stationed at Jasin had repeated attacks of Malarial Fever and died in the Durian Daun Hospital on November 4th. Also Dresser R. LAZAROO who was invalided for Phthisis and who died in Singapore towards the end of the year. Both Dressers were quiet conscientious workers. As all the dressers with the exception of Dresser R. NUNIS, are comparatively junior dressers with little experience, the low mortality in the hospital reflects credit on the staff for the way they did their work, the more especially as the last year was notorious in the history of the Settlement for unhealthiness and the severe outbreaks of Malaria and Small-pox. The staff of attendants was increased in 1911 by three attendants and one toty.

### General Hospital.

#### *European Wards:—*

Remained, 1st January, 1911	...	...	...	Nil.
Admitted	...	...	...	88
Discharged	...	...	...	81
Died	...	...	...	7
Remaining	...	...	...	Nil.
Average daily sick	...	...	...	2·10

#### *Native Wards:—*

Remained, 1st January, 1911	...	...	...	14
Admitted	...	...	...	1,033
Discharged	...	...	...	828
Transferred	...	...	...	7
Absconded	...	...	...	57
Died	...	...	...	105
Remaining	...	...	...	50
Average daily sick	...	...	...	32·44
Percentage of deaths to total treated excluding Quarantine				
Camp...	...	...	...	9·13

*Quarantine Camp:—*

Remained, 1st January, 1911	...	...	...	16
Admitted ...	...	...	...	180
Discharged	...	...	...	144
Died ...	...	...	...	43
Remaining	...	...	...	9
Average daily sick	...	...	...	14.58

*Chief diseases treated:—*

Beri-beri ...	...	...	26 with 3 deaths.
Dysentery ...	...	...	49 „ 17 „
Malaria (Malignant) ...	...	...	309 „ 26 „
Pneumonia	...	...	20 „ 3 „
Small-pox ...	...	...	181 „ 43 „
Syphilis ...	...	...	16 „ ... „
Diarrhœa ...	...	...	47 „ 28 „
Ulcers ...	...	...	106 „ ... „
Injuries ...	...	...	84 „ 3 „
Ankylostomiasis	...	...	34 „ 10 „

*Police.*—There were 126 admissions and 1 death.

*Medico-legal work.*—One hundred and ten cases attended to.

### Pauper Hospital.

Remained, 1st January, 1911	...	...	...	241
Admitted ...	...	...	...	5,453
Discharged	...	...	...	4,653
Absconded	...	...	...	34
Died ...	...	...	...	708
Remaining	...	...	...	299
Average daily sick	...	...	...	286.40
Percentage of deaths to total treated	...	...	...	12.43

*Chief diseases treated:—*

Beri-beri ...	...	...	739 cases with 72 deaths.
Dysentery ...	...	...	201 „ „ 101 „
Gonorrhœa...	...	...	49 „ „ ... „
Malaria ...	...	...	1,943 „ „ 113 „
Phagedæna	...	...	38 „ „ 30 „
Pneumonia	...	...	73 „ „ 25 „
Syphilis ...	...	...	152 „ „ 4 „
Phthisis ...	...	...	117 „ „ 66 „
Diarrhœa ...	...	...	234 „ „ 110 „
Ulcers ...	...	...	911 „ „ 1 „ by suicide.
Injuries ...	...	...	34 „ „ ... „
Ankylostomiasis	...	...	323 „ „ 74 „

Malarial Fever accounted for the greatest number of admissions, viz., 2,252 with 139 deaths, giving a percentage of 6·17. The microscopic examination for malarial parasites in all cases of fever whether admitted for it or developing while under treatment for other diseases was continued.

Dysentery showed a great increase, viz., 250 cases with 118 deaths. The very high mortality from it can only be attributed to the cases being admitted in an advanced stage of the disease, in most cases the patients being admitted to die in hospital so as to obtain free burial.

Beri-beri accounted for 765 admissions with 75 deaths or 9·80 per cent.

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### Jasin Hospital.

*Work done.*—General repairs and a few additions and alterations were executed.

*Hospital staff.*—Assistant Surgeon METHA continued in charge during the year. Various changes took place among the dressers. M. DANKER was transferred on 30th January to Malacca and resigned on May 3rd. Dresser I. DE SOUZA was stationed at varying times in Jasin. In November he developed severe Malignant Malaria and died at the Durian Daun Hospital on November 4th. Dresser TAMBY KITCHIL was sent to Jasin on November 7th.

The year 1911 was notorious for unhealthiness and in consequence the hospital was often overcrowded. A large number of the admissions were estate coolies, chiefly from Bukit Asahan, Jasin, Rim, Kemendore, Bukit Kajang, Ayer Panas and Garing. In all some 1,042 estate coolies were admitted.

There was a great increase in the number of females treated in hospital rising from 70 in 1910 to 105 in 1911. The total number of cases treated was 1,623, showing an increase of 575 as compared with 1910, with a daily average of 95·63.

Malarial Fever as usual claimed the largest number of admissions, viz., 497 cases with 63 deaths or 12·67 per cent.

Dysentery and Enteritis came next with 176 cases and 63 deaths or 35·79 per cent.

Beri-beri had 137 admissions with 15 deaths or 10·95 per cent.

Ulcers 169 with no deaths.

The death-rate for the year was 12·69 per cent but deducting deaths occurring within 48 hours of admission it was 8·63 per cent.

Pulmonary Phthisis showed the highest mortality, viz., 46·34 per cent.

Dysentery 42·73 per cent.

Small-pox 20·54 per cent. As most cases are admitted into hospital in a very grave or advanced stage of the disease this high mortality is not surprising.

Small-pox continued throughout the year in the Jasin District and it became necessary in 1911 to erect a new temporary shed in the Quarantine Camp. One hundred and thirty-four cases of Small-pox, Chicken-pox, Measles and observation were treated in the Camp with a death-rate of 11·19 per cent.

Of the 1,623 admissions, Tamils were 830, Chinese 540, Malays 243 and Indians 10.

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### Alor Gajah Dispensary.

This year was a memorable one in Alor Gajah District for the continuance of the epidemic of Small-pox, which started in 1910 and lasted throughout 1911 causing 252 reported cases, 228 being admitted into the Quarantine Camp for treatment. There were 60 deaths, of which 43 occurred in the Camp. With the view of suppressing the disease Assistant Surgeon DE CRUZ was stationed at Alor Gajah from 13th December, 1910, to 8th May, 1911, Dresser R. LAZAROO from April to June, Dresser M. DANKER from April to May, while Dresser NONIS was sent to Sungai Bahru. Vaccinations were pushed so that there were 7,803 vaccinations done in 1911.



Table showing various incidence of sex, age, nationality and vaccination marks.

### Alor Gajah District.

Total cases of Small-pox 252.

*Incidence :—*

Sex	...	...	{ Male ... 125 }	252
			{ Female ... 127 }	
Age	...	...	{ Under 10 years old ... 40 }	252
			{ Between 10 and 25 years old 92 }	
			{ Between 25 and 40 years old 99 }	
			{ Above 40 years old ... 21 }	
Nationality	...	...	{ Malays ... 239 }	252
			{ Chinese ... 9 }	
			{ Tamils ... 4 }	
Vaccination marks	...	...	{ Shown in 140 cases }	252
			{ Nil. in 112 cases }	

Deaths—total 60, giving percentage 23·80.

Deaths	...	...	{ With vaccination marks ... 24 }	60
			{ Without vaccination marks 36 }	

The disease occurred all over the district but principally at Kuala Linggi, Sungai Bahru and the adjacent mukims and at and around Taboh Naning.

Number of prosecutions for non-reported 64 with fines amounting to \$1,165.

### Jasin District.

Total cases of Small-pox during 1911—93.

*Incidence :—*

Sex	...	...	{ Male ... 50 }	93
			{ Female ... 43 }	
Age	...	...	{ Under 10 years old ... 5 }	93
			{ Between 10 and 25 years old 41 }	
			{ Between 25 and 40 years old 42 }	
			{ Above 40 years old ... 5 }	
Nationality	...	...	{ Malays ... 79 }	93
			{ Chinese ... 8 }	
			{ Tamils ... 6 }	

Deaths—total 29, with a percentage of 31·18.

Vaccination marks	...	{ Recent marks 4 }	93.	Deaths	{ Recent marks Nil. }	29
		{ Old marks 66 }			{ Old marks 19 }	
		{ No marks 23 }			{ No marks 10 }	

Number of prosecutions 30 with fines amounting to \$556.

### Central Division.

Total number of cases of Small-pox—213.

*Incidence :—*

Sex	...	...	{ Male ... 136 }	213
			{ Female ... 77 }	
Age	...	...	{ Under 10 years old ... 30 }	213
			{ Between 10 and 25 years old 90 }	
			{ Between 25 and 40 years old 84 }	
			{ Above 40 years old ... 9 }	
Nationality	...	...	{ Malays ... 98 }	213
			{ Chinese ... 78 }	
			{ Eurasians ... 19 }	
			{ Tamils ... 16 }	
			{ Burmese ... 1 }	
			{ Sikh ... 1 }	

Vaccination marks	...	{ Shown in 93 cases Not shown in 120 cases	} 213
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Deaths—total 84, with a percentage of 39.43.

Out of 84 deaths	...	{ 52 with no vaccination marks 32 with vaccination marks, either well marked or faint.	
------------------	-----	-------------------------------------------------------------------------------------------	--

Total cases within Municipal limits 70. Deaths 26.

The principal mukims affected were Serkam, Kampong Padang, Bukit Rambai, Sungai Rambai, and localities adjacent to these places.

Number of prosecutions 66 with fines amounting to \$1,720.

### For the whole of Malacca.

*Incidence:—*

Sex	...	{ Male ... 311 Female ... 247 }	558
Age	...	{ Under 10 years old ... 75 Between 10 and 25 years old 223 Between 25 and 40 years old 225 Above 40 years old ... 35 }	558
Nationality	...	{ Malays ... 416 Chinese ... 95 Tamils ... 26 Eurasians ... 19 Burmese ... 1 Sikh ... 1 }	558
Vaccination marks	...	{ Shown in 303 cases Not shown in 255 cases }	558

Deaths—total 173, giving a percentage mortality of 31.00.

Deaths	...	{ With vaccination marks 75 either well marked or faint. Without vaccination marks 98.	
--------	-----	-------------------------------------------------------------------------------------------	--

One hundred and sixty prosecutions with fines of \$3,441.

### Gaol Hospital.

There were 23 cases treated with 1 death. The larger number of admissions this year was due to a number of vagrants being arrested by the Police and sent to Prison. These men were for the most part broken down, debilitated and diseased individuals. Of the 23 admissions, 8 were for Diarrhœa, 5 for Malarial Fever, 4 for Anæmia, 3 for Dysentery, 1 Mumps, 1 Colic and 1 Abscess.

### Estate Hospitals.

*Bukit Asahan Central Hospital.*—This hospital has seen many changes in its staff. The present Estate Medical Officer joined early in the year and the hospital at once showed signs of improvement. Mr. MUKERJEE, Assistant Surgeon, displaced Mr. BARRUCHE in the early part of the year. At first in charge of *I* Division he was subsequently fixed at the Central Hospital. Many changes took place among the dressers. There are two other Divisional Hospitals, one at *I* and the other at *D* Divisions. Here minor cases are treated, all serious ones being sent on to the Central Hospital. Each is under a Senior Dresser. There is a good supply of drugs and instruments while the dietary is very carefully attended to. The returns of these hospitals show an increase in the admission with a high death-rate. This was the result of an unfortunate experiment made of introducing Tamil labour, care not being

taken to see that only agricultural labourers and healthy people were selected. As these coolies were likely to be a drag on the estates besides filling the hospitals and increasing the death-rate, the Company arranged to repatriate all who desired it and so several hundreds were sent back to India. The heavy mortality, viz., 10·6 per cent amongst the Tamil coolies was due to Malaria and Dysentery. As prophylactic measures for the former, quinine was served out to all coolies, and ravines drained as far as practicable. Certain lines proved regular Malarial haunts and had to be abandoned, the coolies being removed to other and healthier lines. As this estate like all Malacca itself has swamps and jungle belts all over it, the question of the eradication of Malaria is a difficult if not hopeless one. Great improvements however can be made and are being now done. Dysentery accounted for 466 admissions with 117 deaths. The dirty habits of the Tamils, their partiality for polluted water, their ignorance of cleanliness and care in dietary for bowel disorders and above all their quick depression and home sickness all tended to produce a high mortality. Careful dietary is the prime factor of treatment and this cannot be secured among a people who clamour for curry and rice and who manage to get unwholesome and deleterious food stuff smuggled in to them when under treatment in hospital.

During the year 8,025 in-patients were treated in the Central and Divisional Hospitals with 396 deaths, giving a percentage mortality of 4·9. The daily average number of coolies including all nationalities was 6,000, thus the estate had a death-rate of 66 per mille. Out of 396 deaths 263 occurred among Tamils, and as recruiting from India has now been stopped and as several sanitary measures are in progress, there is every prospect of Bukit Asahan becoming healthier.

Dysentery and Enteritis	accounted for	154	deaths out of	702	treated or	21·92%.
Malarial fever	„	148	„	1,868	„	7·86%.
Pneumonia	„	23	„	61	„	37·70%.
Ankylostomiasis	„	15	„	106	„	14·15%.

### Diamond Jubilee Estate Hospital.

This estate hospital had some changes in its dressers.

Nothing of any importance was done in the way of additions or alterations. A belt of brushwood near the jungle was removed.

During the year there were 851 cases treated with 46 deaths giving a percentage mortality of 5·40 and a daily average of sick of 13·57.

The chief diseases treated were :—

Fever	...	...	...	410	cases with	13	deaths.
Dysentery	...	...	...	120	„	14	„
Diarrhoea	...	...	...	68	„	9	„
Ulcers	...	...	...	33	„	no	„
Ankylostomiasis	...	...	...	32	„	4	„

The estate had a good supply of drugs and instruments.

### Tebong Estate Hospital.

In November the estate hospital was occupied. There is a dresser in charge. In November and December, 10 cases were treated with 2 deaths, 1 from Heart Disease and the others from Ulcer.



## APPENDIX E.

**Kandang Kerbau Hospital, Pauper Ward, Singapore.**REPORT BY MR. C. V. NORRIS, *Assistant Surgeon*.

The following table shows the admissions and their nationalities :—

European	...	...	1	Died	...	0
Eurasian	...	...	18	"	...	3
Chinese	...	...	212	"	...	48
Japanese	...	...	56	"	...	1
Tamil	...	...	81	"	...	18
Malay	...	...	34	"	...	9
Others	...	...	2	"	...	0
Total			404	79		

The average daily sick was 66.74 and the percentage of deaths to total treated was 19.55.

The chief admissions were from :—

Malaria	...	...	...	...	44 cases.
Venereal affections	...	...	...	...	50 "
Tubercle	...	...	...	...	27 "
Ophthalmia	...	...	...	...	17 "
Abscess	...	...	...	...	16 "
Beri-beri	...	...	...	...	21 "

**Penang.****Pauper Ward.**REPORT BY DR. J. S. WEBSTER, *Medical Officer*.

1. During the year the patients have been placed in the upper storey of the Female ward.

2. A new latrine connected to the ward by a covered way has been erected and is used only by these patients; two new bathrooms have also been built.

3. There have been 266 admissions with 15 deaths, against 148 admissions in 1910 with 12 deaths which shows an increase of 79 per cent in the number of patients and a decrease of 25 per cent in the mortality.

4. The majority of patients were Chinese.

5. The chief cause of death was Phthisis.

*Annual return of patients admitted into the Pauper Ward, Penang, with Venereal Diseases for the Year 1911.*

No. of cases with Venereal Diseases.	No. of Prostitutes with Venereal Diseases.
127	94

*Nationality return of the Pauper Ward, Penang, for 1911.*

Nationalities.			Remained.	Admitted.	Total.	Discharged.	Transferred.	Absconded.	Died.	Remaining.
Japanese	...	...	...	41	41	38	...	...	1	2
Chinese	...	...	13	173	186	167	...	...	7	12
Tamils	...	...	2	52	54	42	...	...	7	5
Total			15	266	281	247	...	...	15	19

**Malacca.**REPORT BY DR. A. H. KEUN, *Medical Officer.*

The Women's Hospital is part of the Durian Daun Hospital and is under the same staff. Various minor repairs were executed in the wards and out-houses. The figures of admissions, etc., for the Female wards, General Hospital and Pauper are as follows:—

*General Hospital:—*

Remained	...	...	...	...	...	2
Admitted	...	...	...	...	...	61
Discharged	...	...	...	...	...	47
Died	...	...	...	...	...	12
Remaining	...	...	...	...	...	4

*Principal diseases treated were:—*

Dysentery	...	...	...	...	...	3
Malarial Fever (malignant)	...	...	...	...	...	14
Chronic Diarrhœa	...	...	...	...	...	7
Venereal	...	...	...	...	...	3
Ulcers	...	...	...	...	...	3
Ankylostomiasis	...	...	...	...	...	5
Abortion	...	...	...	...	...	2
Injuries	...	...	...	...	...	6
Daily average number in ward was	...	...	...	...	...	2.86

*Quarantine Camp:—*

Remained	...	...	...	...	...	6
Admitted	...	...	...	...	...	57
Discharged	...	...	...	...	...	47
Died	...	...	...	...	...	10
Remaining	...	...	...	...	...	6
Daily average number was	...	...	...	...	...	2.24

*Principal diseases treated were:—*

Chicken-pox	...	...	...	...	...	4
Small-pox	...	...	...	...	...	55
Observation	...	...	...	...	...	4

*Pauper Hospital:—*

Remained	...	...	...	...	...	11
Admitted	...	...	...	...	...	165
Discharged	...	...	...	...	...	163
Died	...	...	...	...	...	9
Remaining	...	...	...	...	...	4
Daily average number was	...	...	...	...	...	7.80

*Principal diseases treated were:—*

Beri-beri	...	...	...	...	...	4
Dysentery	...	...	...	...	...	10
Venereal affections	...	...	...	...	...	15
Malarial Fever (malignant)	...	...	...	...	...	48
Pneumonia	...	...	...	...	...	2
Anæmia	...	...	...	...	...	4
Bronchitis	...	...	...	...	...	4
Diarrhœa	...	...	...	...	...	28
Ulcers	...	...	...	...	...	15
Ankylostomiasis	...	...	...	...	...	12

*Nationalities, General and Pauper Wards:—*

Chinese	...	...	...	...	...	91
Tamils	...	...	...	...	...	125
Malays	...	...	...	...	...	73
Eurasians	...	...	...	...	...	6
Japanese	...	...	...	...	...	7

In Jasin Hospital there is a small Women's Ward and here 105 cases were treated in 1911 with 10 deaths.

*The nationalities of patients were:—*

Chinese	...	...	...	...	...	2
Malays	...	...	...	...	...	46
Javanese	...	...	...	...	...	27
Indians	...	...	...	...	...	30

*Chief diseases treated:—*

Small-pox	...	...	...	...	...	32
Chicken-pox	...	...	...	...	...	14
Dysentery	...	...	...	...	...	16
Malarial Fever	...	...	...	...	...	23

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## APPENDIX F.

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**OUT-DOOR DISPENSARIES.****Singapore.**

REPORT BY MR. F. CLARKE, *Assistant Surgeon.*

1. The Dispensary was transferred from Victoria Street to the new site, North Canal Road, on 17th June.

2. The number of patients who attended the Dispensary was 10,472, a decrease of 744 on the number for the previous year. This decrease occurred during the latter half of the year.



3. The Dispensary was opened 295 days; the average daily attendance being 107.98.

4. The fees collected amounted to \$3,029.60.

5. The principal diseases treated were:—

Malaria	...	...	...	...	2,174
Venereal Diseases	...	...	...	...	1,252
Rheumatism	...	...	...	...	299
Dyspepsia	...	...	...	...	390
Bronchitis	...	...	...	...	387
Ulcers	...	...	...	...	1,487
Injuries	...	...	...	...	325

6. The nationalities of the patients were:—

Europeans	...	...	...	...	24
Eurasians	...	...	...	...	586
Chinese	...	...	...	...	5,390
Malays	...	...	...	...	1,251
Nations of India	...	...	...	...	2,707
Others	...	...	...	...	514

### Penang.

REPORT BY DR. R. DANE, *Senior Medical Officer*.

The Dispensary was opened for 312 days during the year; the daily average number attending being 53.72 as against 52.99 in 1910.

The total receipt for the year amounted to \$1,003.20 as against \$1,047.45 in 1910.

This institution continues to be well appreciated by the poorer class of people.

The principal diseases treated were:—

Malaria	...	...	...	...	414
Pyrexia	...	...	...	...	929
Rheumatism	...	...	...	...	780
Syphilis	...	...	...	...	169
Bronchitis	...	...	...	...	402
Diarrhoea	...	...	...	...	97
Dyspepsia	...	...	...	...	189
Ulcers	...	...	...	...	1,253
Injuries	...	...	...	...	502

The nationalities of those treated compared are as follows:—

			1910.	1911.
			—	—
Europeans	...	...	58	73
Eurasians	...	...	243	301
Chinese	...	...	2,715	2,709
Malays	...	...	2,199	1,792
Natives of India	...	...	3,015	2,674
Others	...	...	98	99
Total			8,328	7,648

Comparative statement showing the number of patients at the Government Out-door Dispensary, Penang, from 1902 to 1911:—

—	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Number of patients attended ...	4,894	4,909	5,826	6,504	7,046	6,876	7,179	7,693	8,328	7,648
„ of visits paid ...	8,269	9,709	11,860	11,259	11,427	11,990	14,362	15,004	16,535	16,762
Patients treated free ...	1,700	1,500	2,026	2,624	3,353	3,095	3,077	3,436	3,519	2,747
Indigent patients ...	170	160	252	218	278	196	319	616	558	756
Paying patients ...	3,024	3,249	3,548	3,662	3,415	3,585	3,783	3,641	4,251	4,145
Average visits per diem ...	27.80	32.69	39.53	38.16	38.44	40.50	46.93	48.4	52.99	53.72
Number of days dispensary open ...	296	297	300	295	298	296	306	310	312	312
Receipts for the year \$	643.40	752.05	795.10	840.56	768.26	866.90	972.15	921.60	1,047.45	1,003.20

### Return of Government Out-door Dispensary, 1911.

Months.	Total Patients.	Total Visits.	Indigent Patients.	Paying Patients.	Police Force.	Government Servants.	Free Patients.	Receipts.
January ...	627	1,107	60	293	149	97	28	\$ c. 74 70
February ...	562	1,167	64	293	125	62	18	71 45
March ...	681	1,093	81	317	168	92	23	75 50
April ...	580	1,266	51	305	123	73	28	73 95
May ...	738	1,876	57	426	122	104	29	106 35
June ...	642	1,526	42	392	106	89	13	94 30
July ...	614	1,526	54	378	67	95	20	87 95
August ...	606	1,564	73	341	97	80	15	81 15
September ...	601	1,416	79	336	87	75	24	80 75
October ...	643	1,532	95	330	91	111	16	86 70
November ...	676	1,328	54	375	113	119	15	86 20
December ...	678	1,361	46	359	139	122	12	84 20
Total ...	7,648	16,762	756	4,145	1,387	1,119	241	1,003 20

### Balik Pulau.

During the year 267 visits were made by patients to the Dispensary.

### Dindings.

The number of cases treated during the year was 693, against 569 in the previous year, an increase of 124.

Two hundred and seventy-seven cases were mild Malaria Fever (261 cases from the District of Dindings and 16 cases from Sitiawan).

The receipt for the year amounted to \$70.

## Province Wellesley.

The total number of attendances at the Out-door Dispensary at Butterworth, Bukit Mertajam and Sungai Bakap was 4,643. The largest number of cases treated were due to ulcers. Fevers also claimed a large number of patients.

## Malacca.

### OUT-DOOR DISPENSARIES.

During the year 3,645 were treated as contrasted with 3,660 cases of the preceding year. The total receipts for the year was \$648.95 contrasting with \$1,126.35 in 1910.

#### *Nationalities :—*

				<i>Males.</i>	<i>Females.</i>
				—	—
Europeans	...	...	...	105	63
Eurasians	...	...	...	606	496
Chinese	...	...	...	571	228
Malays	...	...	...	784	174
Tamils	...	...	...	497	97
Others	...	...	...	1	23
				—	—
				2,564	1,081
				—	—

#### *Chief Diseases treated :—*

Pyrexia	...	...	...	...	527
Malarial Fever	...	...	...	...	441
Bronchitis	...	...	...	...	255
Ulcer	...	...	...	...	184
Rheumatism	...	...	...	...	152
Beri-beri	...	...	...	...	125
Dyspepsia	...	...	...	...	125
Anæmia	...	...	...	...	139
Neuritis	...	...	...	...	137
Diarrhœa	...	...	...	...	91
Dysentery	...	...	...	...	40

## Jasin.

During the year 1911 there were treated 389 cases as contrasted with 569 cases in 1910. This decrease in attendance may be ascribed to the several estates in the neighbourhood keeping their own dispensaries with dressers in charge.



The amount of receipts in 1911 was \$49.35 as contrasted with \$83.99 in 1910. Planters and coolies who formerly got their prescriptions made up at the Government Dispensary now have them prepared in some of the Estate Dispensaries or in town.

*Nationalities:—*

Europeans	...	...	...	...	25
Eurasians	...	...	...	...	27
Chinese	...	...	...	...	139
Malays	...	...	...	...	83
Indians	...	...	...	...	114
Others	...	..	...	...	1

*Chief diseases treated were:—*

Malarial Fever	...	...	...	...	179
Dysentery	...	...	...	...	7
Beri-beri	...	...	...	...	22
Ulcer	...	...	...	...	60
Wounds	...	...	...	...	24
Worms	...	...	...	...	8

---

### Alor Gajah.

In 1911, there were treated 210 cases as contrasted with 241 in 1910. The amount of receipts was \$17.95 contrasting with \$25.60 in 1910.

*Nationalities:—*

Europeans	...	...	...	...	3
Eurasians	...	...	...	...	5
Chinese	...	...	...	...	28
Malays	...	...	...	...	148
Indians	...	...	...	...	26

*The chief diseases treated were:—*

Fever	...	...	...	...	64
Beri-beri	...	...	...	...	8
Diarrhoea	...	...	...	...	1
Ulcers	...	...	...	...	46
Wounds	...	...	...	...	2

## APPENDIX G.

## VACCINATION.

## Singapore.

1. The total vaccinations performed in Singapore during the year under report was 5,391 as against 5,146 in 1910.

2. The public vaccinator performed 2,337 vaccinations of which 1,651 were in subjects of one year old and under. Of the total number vaccinated by the public vaccinator 1,103 were males and 1,232 were females. One thousand six hundred and ninety-two vaccinations were performed within Municipal limits and 625 in country districts.

3. All the vaccinations performed by the public vaccinator were perfect and the largest number of operations was done in March, viz., 283.

4. During the year the licensed vaccinators performed 2,876 vaccinations, of which 2,065 were on children of one year and under.

5. The private Medical Practitioners reported 178 vaccinations performed by them during the year.

6. Two persons were licensed as vaccinators.

7. A quantity of Hongkong lymph was tried and compared favourably with the lymph from Saigon.

Settlement.	Result.				
	No. of Vaccina- tions per- formed.	Perfect.	Modified.	Failed.	Not seen.
Singapore ... ..	5,391	5,326	1	17	47
Penang ... ..	10,336	2,189	195	233	7,719
Dindings ... ..	435	428	...	7	...
Province Wellesley ... ..	6,811	5,395	432	625	359
Malacca ... ..	51,323	14,949	2,360	3,050	30,964
Labuan ... ..	229	205	...	14	10
Total ... ..	74,525	28,492	2,988	3,946	39,099

		One year and under.	Over one year.
Private Practitioners ... ..	...	104	74
Licensed Vaccinators ... ..	...	2,065	811
Public Vaccinator ... ..	...	1,651	686
		3,820	1,571
		5,391.	

### Penang.

The number of children and others collected by the Police for vaccination during the year 1911 in Penang was 2,453 and 88·46 per cent of these operations were successful. There were also 214 successful vaccinations reported by private practitioners. Besides these there were 7,669 vaccinations and re-vaccinations performed on the highways and by-ways by vaccinator SAMUEL. The result of these is not known.

The sub-joined table shows the number vaccinated during the past five years and the number of births registered:—

YEAR.	Vaccinations in town and country districts.	Percentage of successful cases.	Total births registered.
1907 ... ..	2,753	95·20	2,306
1908 ... ..	3,369	98·24	2,930
1909 ... ..	3,020	97·25	2,706
1910 ... ..	2,725	90·90	3,025
1911 ... ..	2,453	88·46	3,371

### Dindings.

Four hundred and thirty-five people were vaccinated during the year with 7 failures.

### Province Wellesley.

Number of cases vaccinated was 6,811 (3,571 males and 3,240 females).

*Table showing Nationalities.*

Result.	Europeans.	Eurasians.	Chinese.	Malays.	Indians.	Others.	Total.
Perfect ... ..	...	7	594	4,320	439	35	5,395
Modified ... ..	...	...	38	349	45	...	432
Failed ... ..	...	4	78	474	68	1	625
Not seen ... ..	...	...	29	300	30	...	359
Total ... ..	...	11	739	5,443	582	36	6,811
Percentage of failures to total vaccinated ...	...	36·36	10·55	8·70	11·68	2·77	9·17

*Percentage of Failures to Total Vaccinated.*

Northern.	Central.	Southern.	For the three Districts.
9·09	9·96	7·77	9·17



**Malacca.***Annual return of Vaccination and Re-vaccination in the Division of Malacca, 1911.*

Stations.	Number Vaccinated.	RESULT.			Not seen.
		Perfect.	Modified.	Failed.	
Town ... ..	24,676	3,433	225	1,031	19,987
Country ... ..	18,406	5,994	1,306	830	10,276
Total ... ..	43,082	9,427	1,531	1,861	30,263
Vaccination done by Gurus ...	8,241	5,522	829	1,189	701
Grand Total ...	51,323	14,949	2,360	3,050	30,964

*Difference of Ages of those Vaccinated during the Year 1911.*

Under one year.	From one to ten years.	From ten to twenty years.	Above twenty years.	Total.
2,209	6,817	7,802	26,254	43,082

*Number of Children and Others Vaccinated in Town and District  
for the Year 1911.*

Nationality.	TOWN.		Nationality.	COUNTRY.		Grand Total.
	Number Vaccinated.	Total.		Number Vaccinated.	Total.	
Europeans ...	25	} 24,676	Europeans ...	33	} 18,406	43,082
Eurasians ...	1,022		Eurasians ...	17		
Chinese ...	17,567		Chinese ...	5,109		
Malays ...	3,694		Malays ...	11,602		
Indians ...	2,078		Indians ...	1,555		
Other Nations ...	290		Other Nations ...	90		

## APPENDIX H.

## Quarantine.

REPORT BY DR. G. E. BROOKE, *Port Health Officer, Singapore.*

1. *Port*.—During the year 2,100 visits were paid to vessels, which included the examination of 110,882 crew and 427,409 passengers.

2. Of these ships, 75 were infected :—

Small-pox	...	...	...	...	...	40
Plague	...	...	...	...	...	4
Cholera	...	...	...	...	...	31

3. The s. s. *Hygeia* was used for disinfecting purposes on 208 occasions. The scale of charges for this work has been fixed by Government Notification No. 836, dated 1st July, 1911. It is based on the Registered tonnage of the ship and on the treatment of the holds. The rate is \$2.50 for each 100 tons if the holds are treated and if the work is done in the daytime. If done at night, double fees are charged; while if the holds are not dealt with, only half the above fees are charged. The minimum in every case is \$25.

4. The s. s. *Hygeia* was also used 19 times for transport of police and heavy stores to St. John's Island.

5. The extra amount of work done by the s. s. *Hygeia* this year is accounted for by the declaration of Singapore as an infected port (plague) by the Dutch Government.

To oblige the shipping firms, therefore, all out-going steamers for Dutch ports were disinfected prior to departure, as is always done for the Australian ships. The Dutch Government have now established a plant at Pulau Samboe which has greatly relieved the pressure.

In a large and busy port like Singapore, a second disinfecting launch is almost a *sine qua non*; the matter of providing for this is now under consideration.

6. By courtesy of the Marine Department a Health Certificate Form was presented to the Surgeon or master of 5,700 vessels which, being not in quarantine or not from an infected port, are not boarded by the Port Health Officials. These certificates represented 292,896 crew and 306,654 passengers of whose health the Port Health Department was thus immediately informed.

7. Cases of deaths occurring on steamers or sampans in the port numbered 46. Of these, 39 were allowed ashore for burial and seven suspicious corpses were sent to St. John's for post-mortem examination and burial. (Form D. 134).

8. Permission to import or export corpses in coffins for burial elsewhere was given in 26 instances. A stamp fee of \$10 is now payable on each certificate. (Form D. 178).

9. Local-trading steamers of under 300 tons register were inspected at intervals throughout the year, 28 visits being paid to 28 vessels.

10. Water-boats to the number of 57 were examined, and two suspicious samples of water were analysed.

11. Nearly 5,000 passports were issued during the year to incoming cabin passengers from infected ports or ships. The clerical labour involved is still a drawback as pointed out in last year's report.

12. Nineteen visits were paid to the Government Marine quarters. Two cases of Cholera occurred in the Engineer's quarters during the year. The contacts were promptly removed to St. John's and no further cases occurred. The house was vacated after disinfection. The origin of the cases was not traceable.

The health of the staff has been on the whole fairly good.

The jungle on the hill above the village has been cleared, which is a considerable improvement.



13. *Quarantine Station*.—The station was occupied every day of the year. The total number of passengers landed was 53,961 as compared with 35,062 the previous year.

14. The maximum number on any day was 4,892.

15. The total sick treated in hospital was 1,612; the daily average being 41·2 and the maximum number on any one day being 150.

16. The number of deaths totalled 387, giving a death-rate of 24 per cent.

17. The rainfall was 60·84"—an exceptionally dry year.

18. Vaccinations were done on the station to the number of 1,972.

19. During the year the distilling plant worked well, 942,450 gallons of water being produced.

20. The following Municipal contacts were sent to St. John's for isolation :—

Cholera	...	...	...	...	...	504
Small-pox	...	...	...	...	...	376
Plague	...	...	...	...	...	81

21. Cholera having broken out at Pasir Panjang amongst the lunatics and beri-beri patients, 146 were removed to St. John's on 19th August, 2 more on August 21st and 87 on 24th August. Five cases occurred on admission, 9 subsequently, and also 2 amongst the attendants making a total of 16 cases of whom 14 died. There were also 3 deaths from other causes. The remainder were discharged on 19th September, with the exception of a few convalescents in hospital. The disease appeared at first to be spreading rapidly, and I attribute its speedy decline to the administration of Eucalyptus oil as a prophylactic, and to the perpetual insistence on hand washing before eating. General cleanliness and fly prevention seem to be of slight avail unless accompanied by these two precautions. The Matron, Mrs. GUNN, gave the greatest help in carrying out the details of all precautionary measures.

22. An experimental area was planted with "Soy Bean" and a fair crop was raised. The failure to grow the bean successfully in Malaya is not I think due to any climatic causes, but rather to lack of knowledge of agricultural details.

A broad cast crop should first be grown and when this flowers in 6 or 7 weeks, it should be ploughed in to the ground wholesale as it stands. The bean is then sown in drilled holes at proper intervals and an excellent crop should result. Its value economically and as a food is very great and it is to be regretted that more use is not being made of it.

23. The chief public works during the year have been the erection of a large inspection shed where contacts can take shelter during disinfection or whilst waiting to go to their wards or to leave the island. This shed will be very useful; and contains a closed apartment where females can disrobe in private, for disinfection, under the superintendence of the nurse.

The means of disinfection were augmented by the erection of a building to contain the sulphur generator purchased at Manila during the previous year. The machine was installed; a vertical boiler obtained and the whole is now in working order.

24. The Public Works Department have erected a sample latrine on a plan with which I furnished them. This has not yet had a trial. The model is one evolved, after some thought, as a suitable one for estates, etc., where no water system is available. The principle is that of 2 rollers with an endless canvas belt. The lower portion of the belt is perpetually immersed in a tank containing a thin solution of tar. The upper portion forms the faecal catchment area and is the sole floor of the building—the squatting bars being raised above it.

A few turns of a roller suffice to remove the faeces into one collecting box, and at the same time a freshly tarred surface is replaced for use.

If foul the belt can easily be removed and burnt and a new one inserted. It should ensure a maximum of cleanliness and a minimum of scavenging labour.

25. *Office and shore work*.—Four visits of routine inspection were paid to Government buildings in the town, as Deputy Health Officer.



26. In the out-districts of Singapore Island the following cases were dealt with:—

Small-pox	...	...	...	...	...	27
Cholera	...	...	...	...	...	12
Plague	...	...	...	...	...	2
Leprosy	...	...	...	...	...	1

These included the removal to hospital (or for burial) of the patient or of the contacts to St. John's Island. In most cases the house was disinfected; but in several, where disinfection was impracticable, the house was burnt.

Several abortive searches were made through the country side for suspected cases, in addition to the above.

For this work at present a hired car is used if the Public Works Department car is not available.

27. At the Port Health Office out-patient department the following cases were treated:—

Surgical	...	...	...	...	...	14
Malaria	...	...	...	...	...	49
Other diseases	...	...	...	...	...	49
Total						112

28. Bills of Health to the number of 1,800 were issued, representing a stamp fee revenue of over \$8,500.

29. Only two prosecutions were undertaken during the year. One was in the matter of the s.s. *Curonia*, a Russian vessel which brought coolies from Amoy and Swatow. A Cholera epidemic had occurred during the voyage and the report of this was suppressed by the officials. As the ship was then apparently healthy the coolies were all released and came ashore in Singapore. The result was a small epidemic in the town, which fortunately did not last many weeks. The master was discharged and the Doctor fined \$500.

The other prosecution was that of some Tamils who had buried their dead small-pox child beneath the floor of their kitchen at Siglap. In this case there was a sentence of \$50 or three weeks imposed.

30. A considerable number of smears were stained and examined, also several water analyses made.

31. *Staff*.—Drs. MCHUTCHISON and MCVAIL both did duty as Assistant Port Health Officers during the year; and Dr. GIBBS also rendered help for a short time.

On November 26th for the first time, a permanent Assistant Port Health Officer arrived—Dr. MATHIESON.

Mr. WILLIAMS did excellent work as Assistant Surgeon during the first part of the year, but unfortunately died of liver abscess after a short illness. He was a most reliable officer and will be much missed.

Mr. DE CRUZ has been attached to the office, since then and has worked well.

On St. John's, Mr. PESTANA was in residence till May 14th.

There was then an interregnum of nearly a month with only a dresser in charge, after which Mr. DE CRUZ acted as Resident Medical Officer from June 9th to July 28th and was replaced by Dr. FURNIVALL on July 29th, the latter being in charge throughout the rest of the year.

## QUARANTINE.

### Penang.

REPORT BY DR. J. C. C. FORD, *Medical Officer*.

1. *Harbour*.—During the year 1,144 vessels were visited and 61,336 crew units and 215,815 passengers were inspected.

2. During the Cholera epidemic in Kedah, particular attention was directed to junk traffic from Kedah ports. In the months of February, March, April, May and June 310 junks with 1,500 members of crew and 19 passengers were detained in quarantine and released after disinfection of water tanks, etc.

3. Under the Pilgrim Ships Ordinance 8 vessels were inspected and cleared for Camaran and Jeddah. The number of pilgrims embarking at this port was 1,882. Small-pox infection occurred on 7 out of the 13 vessels, carrying Hadjis returning from the Hedjaz. One vessel was infected with Bubonic Plague as well.

4. Permits to bury were issued in 10 cases of deaths on steamers, sampans and junks in the harbour, after investigation.

In Statement *A* is shown the number of vessels, passengers and crew units inspected in each month of the year.

5. Statement *B* shows the number of vessels arriving from ports subject to quarantine restrictions during 1911.

6. *Small-pox*.—The large majority of the cases were imported from Jeddah. Out of 96 cases removed from vessels, 83 were removed from pilgrim vessels. Thirty-two cases were landed in quarantine from one vessel alone.

The 96 cases were imported as follows:—

From Jeddah	...	...	...	...	83 cases.
„ Negapatam	..	...	...	...	7 „
„ Moulmein	...	...	...	...	1 case.
„ Amoy	...	...	...	...	2 cases.
„ Hongkong	...	...	...	...	1 case.
„ Calcutta	...	...	...	...	1 „
„ Rangoon	...	...	...	...	1 „

7. *Cholera*.—Nine cases were imported as under:—

From Kedah	...	...	...	...	1 case.
„ Negapatam	...	...	...	...	7 cases.
„ Asahan (Sumatra)	...	...	...	...	1 case.

The cases from Kedah and Asahan occurred among the crew.

On one occasion, when Cholera was epidemic in Madras, the usual weekly vessel arrived with infection in the 1st and 2nd saloons and 'tween decks.

8. *Plague*.—One case Bubonic Plague was removed from a vessel arriving here from Rangoon.

9. The number of vessels, junks, etc., which required inspection on arrival here was larger than usual. Cholera was epidemic in Kedah, the West coast of Siam and Lower Perak from February to July. The increase in immigration from India, through Madras and Negapatam, necessitated extra vessels being put on the run during the months of May, June and July. Mr. WESTERHOUT in addition to his own duties at the Chowrasta Dispensary, assisted in the harbour work during these months.

10. An additional Quarantine Anchorage in the South Channel was established during January. It materially lessens the distance between the station and the ship and so is a benefit to all concerned.

11. Vessels which arrived here actually infected with Cholera, Small-pox or Plague discharged their cargoes at either the North or South anchorages, to reduce to a minimum, communication with the shore.

## STATEMENT A.

(SHOWS INSPECTIONS IN EACH MONTH OF THE YEAR.)

MONTHS.			No. of Vessels.	No. of Crews.	No. of Passengers.
January	...	...	65	4,911	13,176
February	...	...	115	4,921	13,490
March	...	...	147	5,756	18,020
April	...	...	128	5,386	20,169
May	...	...	140	6,339	22,590
June	...	...	159	7,772	30,134
July	...	...	166	6,475	18,039
August	...	...	78	4,749	15,645
September	...	...	35	3,577	15,501
October	...	...	54	5,279	18,145
November	...	...	29	3,045	15,985
December	...	...	28	3,126	14,921
Total			1,144	61,336	215,815



## STATEMENT B.

(SHOWS NUMBER OF VESSELS ARRIVING FROM EACH INFECTED PORT AND  
SUBJECT TO QUARANTINE RESTRICTIONS.)

PORTS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
<i>India :—</i>													
Bombay ...	4	6	6	5	7	4	4	6	5	6	3	...	56
Calcutta ...	8	7	7	7	7	8	8	6	6	4	...	6	74
Rangoon ...	9	10	9	10	13	8	12	13	12	8	4	1	109
Moulmein ...	2	1	3	...	...	...	...	...	...	...	...	...	6
Negapatam ...	4	4	5	4	5	10	4	5	4	4	5	4	58
Tuticorin ...	...	...	...	...	...	...	...	1	...	...	...	...	1
<i>China :—</i>													
Amoy and Swatow ...	5	2	2	5	4	5	2	1	1	5	4	5	41
Hongkong ...	8	6	7	7	8	7	5	1	4	8	7	8	76
<i>Straits Settlements :—</i>													
Singapore ...	...	...	2	1	1	1	2	1	...	19	5	1	33
<i>Perak :—</i>													
Teluk Anson, Bagan Dato ...	...	15	20	18	27	48	47	31	1	...	1	...	208
<i>Siam West Coast :—</i>													
Perlis, Trang ...	21	7	13	12	8	13	...	1	...	...	...	...	75
Kedah ...	1	52	72	58	60	55	79	8	...	...	...	...	385
<i>Arabia :—</i>													
From Jeddah ...	3	5	1	1	...	...	...	...	...	...	...	3	13
To Jeddah ...	...	...	...	...	...	...	3	3	2	...	...	...	8
<i>Sumatra :—</i>													
Asahan ...	...	...	...	...	...	...	...	1	...	...	...	...	1
	65	115	147	128	140	159	166	78	35	54	29	28	1,144

## QUARANTINE STATIONS.

## (Pulau Jerejak.)

1. The old Quarantine Station was occupied throughout the year. The New Station at Sungai Panchor, Pulau Jerejak, was occupied on the 6th April. It was intended when the new station was opened to vacate the old station, but the abnormal rush in immigration from Madras and Negapatam and the combined occurrence of cholera among them, necessitated the re-occupation of the old station. During the last few months of the year, a limited portion only of the new station was available, while structural alterations and additions were being carried out.

2. The number of passengers detained for observation, sickness, etc., from 214 vessels, was 134,957 which includes 61,690 immigrant coolies.

3. Statement *C* gives the daily average of the two stations during each month of the year.

4. The following diseases were treated :—

				<i>Cases.</i>	<i>Deaths.</i>
				—	—
Small-pox	...	...	...	109	13
Cholera	...	...	...	387	337
Plague	...	...	...	1	...
Chicken-pox	...	...	...	94	...
Other diseases	...	...	...	1,623	306
Total cases treated	...	...	...	2,214	
Total Deaths	...	...	...	...	656
Percentage of deaths to total treated	...	...	...	...	29.62

5. The maximum number in detention on a single day on the combined stations was 11,738; the maximum numbers at the new and the old stations were 10,126 and 5,963 respectively.

6. Statement *D* gives details of the work done on both stations.

7. Vaccinations (including re-vaccinations) to the number of 73,988 were done by the Vaccinator. One adult male developed Small-pox, in a modified form, 8 days after successful vaccination. One adult female and one adult male, who both bore good marks of vaccination, done in infancy and who subsequently had small-pox, as evidenced by their pitted appearance, were successfully vaccinated; the vesicles, however, were not typical.

8. There was a scarcity of water during the months of March, April, July and August and fresh water was conveyed to both stations from town in water-boats. These were months of drought and both reservoirs ran dry. The cost of this supply was \$4,859.37.

9. Visits were paid by :—

His Excellency the Governor.

The Hon'ble Resident Councillor, Penang.

The Federal Secretary to the High Commissioner.

The Principal Civil Medical Officer, Straits Settlements.

The Indian Immigration Committee.

The Board of Visitors, Penang.

10. Mr. BRUCE continued as Assistant Surgeon at the old station in addition to his duties as Assistant Surgeon, Leper Asylum.

Mr. PESTANA assumed duties as Assistant Surgeon, new station, on the 12th June.

*Cholera.*—The outbreak of Cholera, during the months of June and July, occurred among the immigrant coolies intended for estate labour. In the quarantine report

for 1910, I remarked that the incidence of cholera among these coolies, was greater than that among the ordinary deck passengers, arriving by the same vessels. These epidemics have occurred regularly since 1904, during the months, June to September; this season coincides with the times of want and privation in the recruiting districts in India, and the subsequent rush of immigration to the Straits Settlements.

On the 22nd June, no more could be accommodated at either Quarantine Station and the *Teesta*, which arrived here infected, was sent on to Singapore, where the passengers were removed to the Quarantine Station on St. John's Island.

From July the coolies for Selangor Estates were sent direct to the temporary Quarantine Camp at Port Swettenham for observation and disinfection instead of being quarantined in Penang.

As a prophylactic, cholera vaccine was obtained from the Pasteur Institute, Weltevreden, Batavia, and 1,176 inoculations were done as under:—

21st July, 1911	...	390	ex s.s. <i>Tara</i> from Negapatam on 15th June, 1911.
31st July, 1911	...	398	} ex s.s. <i>Taroba</i> from Negapatam on 6th July, 1911.
1st August, 1911	...	388	

Several cases of cholera had occurred among these coolies. These inoculations were done, when the epidemic had practically ceased, and so it was not possible to estimate the efficacy of the prophylactic. However, no further cases occurred among those inoculated, and it was possible to release them after the 5th day.

The vaccine was injected subcutaneously into the skin of the back, inside and next to the top of the left shoulder blade; the dose for an adult being 1 c. c., for children from 5–15 years  $\frac{3}{4}$  c. c. and for those from 2–5 years  $\frac{1}{2}$  c. c., infants in arms were not inoculated.

Within 24 hours, there was some reaction with swelling and tenderness at the point of injection and very mild indisposition.

The majority of those inoculated on the 21st July refused food the next day, this was not noticed among those inoculated on the 31st July and 1st August: this reaction passed away within 36 hours; there were no accidental ill effects.

The cost of each injection was about 18 cents.

### STATEMENT C.

#### DAILY AVERAGES AT EACH QUARANTINE STATION IN 1911.

				<i>Old Station.</i>	<i>New Station.</i>
				—	—
January	...	...	...	652	...
February	...	...	...	2,868	...
March	...	...	...	3,324	...
April	...	...	...	1,389	3,085
May	...	...	...	1,700	5,899
June	...	...	...	2,235	7,365
July	...	...	...	3,865	4,109
August	...	...	...	1,492	1,129
September	...	...	...	744	974
October	...	...	...	924	788
November	...	...	...	764	893
December	...	...	..	76	568



## STATEMENT D.

(SHOWS THE WORK DONE AT THE QUARANTINE STATIONS IN  
EACH MONTH OF THE YEAR).

—	Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Vessels ...	22	23	19	18	22	25	23	16	14	15	9	8
Passengers ...	3,815	8,188	11,982	14,528	18,332	25,249	20,550	10,716	6,396	6,227	6,089	2,705
Daily average ...	652	2,868	3,324	4,490	7,599	9,600	7,974	2,621	1,718	1,712	1,657	644
Small-pox admitted.	2	30	2	1	2	...	1	...	1	2	1	54
„ Fresh cases.	1	1	5	1	2	1	1	...	1	...	...	...
Cholera admitted ...	1	...	...	...	1	1	...	...	...	...	...	...
„ Fresh cases.	...	...	...	2	...	132	238	6	...	...	6	...
Plague admitted ...	...	...	...	...	1	...	...	...	...	...	...	...
Chicken-pox ...	5	9	33	14	11	7	5	1	7	...	2	...
Deaths, Small-pox ...	...	8	3	2	...	...	...	...	...	...	...	...
„ Cholera ...	...	...	...	2	1	103	212	10	...	...	9	...
„ Plague ...	...	...	...	...	1	...	...	...	...	...	...	...
Vaccinations ...	1,714	5,449	5,707	8,606	12,236	15,246	9,062	3,039	4,234	3,810	3,442	1,443

*Condensed résumé of Eleven Years' Work—Harbour and Quarantine Stations.*

—	Vessels.	Units of crew and passengers inspected.	Passengers landed on Quarantine Station.	Small-pox treated.	Cholera treated.	Plague treated.	Mean daily average Quarantine Station.	Vaccinations.
1901 ...	1,309	200,186	2,188	3	3	1	...	...
1902 ...	1,000	180,632	5,755	5	42	...	...	...
1903 ...	957	180,251	1,688	9	22	1	...	...
1904 ...	748	184,691	2,217	16	5	2	...	...
1905 ...	869	214,136	10,406	10	1	...	171	...
1906 ...	675	204,988	23,288	16	8	2	461	6,490
1907 ...	633	219,839	17,650	4	24	1	116	5,652
1908 ...	1,205	176,119	21,175	51	9	2	366	5,691
1909 ...	503	161,971	23,058	25	2	1	359	5,614
1910 ...	526	217,967	71,876	62	33	2	1,584	12,205
1911 ...	1,144	277,151	134,957	109	387	1	3,740	63,988

## RAINFALL—PULAU JEREJAK.

1911.				Amount.	No. of rainy days.
—				—	—
January ...	...	...	...	2'07	8
February ...	...	...	...	4'14	3
March ...	...	...	...	1'13	5
April ...	...	...	...	6'43	15
May ...	..	...	...	9'37	12
June ...	...	...	...	7'21	8
July ...	...	...	...	3'58	6
August ...	...	...	...	9'53	13
September ...	...	...	...	8'96	14
October ...	...	...	...	7'62	18
November ...	...	...	...	7'91	16
December ...	...	...	...	5'24	9
				<u>73'19</u>	<u>127</u>

Greatest rainfall in one day—2'35 on the 13th September, 1911.

## QUARANTINE.

## Malacca.

On the 14th October a case of Cholera occurred in a Chinese deck passenger on board the *Lady Weld* from Singapore bound for Muar. The steamer after disinfection was ordered back to Singapore with the passengers for quarantine.

From that date all steamers coming from Singapore were visited for the inspection of all passengers and crew. Up to the end of the year 177 vessels were thus inspected. Six thousand three hundred and eight passports were issued to passengers permitted to land and opportunity was taken to get landing passengers vaccinated. In all 4,610 passengers were thus vaccinated.

## APPENDIX I.

## Government Analyst's Department, Singapore.

REPORT BY DR. FRANKLAND DENT, M. Sc., Ph. D., F. I. C., *Government Analyst, S. S.*

The following table shows the revenue and expenditure for the year 1911, for comparison the revenue for the preceding year is inserted:—

Revenue.	1910.	1911.	Expenditure 1911.	—
	\$ c.	\$		\$ c.
Petroleum Inspection Fees ...	5,045 00	4,830	Personal Emoluments	11,186 29
Government Analyst's Fees ...	7,970 00	8,165	Chemical Stores from England ...	542 82
Total ...	13,015 00	12,995	Miscellaneous Expenses ...	472 17
			Transport, Travelling & Personal Allowances	230 34
By Sales of Pyridine ...	204 16	210	Total ...	12,431 62

A considerable amount of revenue-producing work had to be refused owing to the Department being shorthanded during nine months of the year.

## Petroleum.

(a) *Kerosine*.—The following statement gives a comparison between the quantities tested on importation during the years 1910 and 1911:—

Description of Oil.			1910.			1911.		
			Number of Consignments.	Tins.	Tons.	Number of Consignments.	Tins.	Tons.
<i>Case Oil.</i>								
American Oil	{	Devoes ...	3	111,000	...	6	149,222	...
		Sylvan Arrow ...	5	175,224	...	6	225,622	...
		Cross ...	17	44,512	...	15	12,300	...
Langkat Oil	{	Crown ...	67	243,534	...	71	227,753	...
		Dragon ...	32	449,554	...	28	264,581	...
		Rising Sun... ..	13	39,485	...	24	33,658	...
		Lamp Glass..	14	39,258	...	8	6,190	...
		Silver Light..	1	1,960	...	...	...	...
		Fish ...	...	...	...	20	23,080	...
		Sumatra ...	...	...	...	4	860	...
Rangoon Oil	{	Gun ...	1	2,501	...	...	...	...
		Umbrella ...	1	2,963	...	...	...	...
		Watch ...	1	13,885	...	...	...	...
<i>Bulk Oil.</i>								
Balik Papan	...	2	...	3,770	...	...	...	
Palembang...	...	1	...	508	...	...	...	
Pulau Samboe	...	19	...	754	18	...	615	
Soe Soe	...	1	...	900	...	...	...	
Pladjoe	...	1	...	500	...	...	...	
Total ...			179	1,123,876	6,432	200	943,266	615

In no case was petroleum, not previously declared to be dangerous, found to flash below the local standard.

Fifty-six cargoes were tested and certificates issued for petroleum consigned to Sarawak, Hongkong and Colombo in order to avoid delay at these and intermediate ports.

Three samples of petroleum were sent to be tested by the Standard Instrument kept in this laboratory, and two samples for report as to their commercial value.

(b) *Mineral Turpene*.—One consignment of 12,220 gallons was imported and found to flash at 84°.

(c) *Dangerous Petroleum*.—On all importations the receptacles containing dangerous petroleum were examined and were found to meet the requirements of the Ordinance.

(d) *Liquid fuel*.—Fifteen consignments of 47,316 tons were tested on importation.

(e) *Tank Testing*.—Thirty-six vessels which had carried petroleum were tested for vapour by means of Redwoods' Standard Instrument before being allowed to enter dry dock.



### Explosives.

Nine consignments of explosives comprising 1,568 cases of gelignite, 465 cases of dynamite and 405 cases of blasting gelatine were tested on importation into Singapore in accordance with the Rules under "The Explosives Ordinance 1899."

All passed the prescribed tests.

### Counterfeit Coins.

(a) *Britannia Metal*.—Fourteen sets of exhibits in connexion with the making or uttering of counterfeit coin were examined during the year.

The total number of coins examined was 1,098, as compared with 216 last year. The number was made up as follows:—57 dollars, 121 fifty-cent pieces, 51 twenty-cent pieces, 867 ten-cent pieces and 2 five-cent pieces.

In five cases complete sets of the apparatus and materials necessary for the manufacture of counterfeit coin were seized by the police and forwarded for examination.

(b) *Silver*.—Thirty-two Straits dollars were sent for examination in connexion with three cases. Of these 25 were counterfeit. This number also shows an increase as compared with the 22 submitted last year of which 15 were spurious.

Included amongst the exhibits in the above cases, were three Siamese coins, 25 British Trade dollars, and a copper coin covered with gold paint.

### Minerals.

Sixty-nine samples of minerals were assayed and reported upon.

*Details are given in the subjoined table.*

Wolfram.	Scheelite.	Cassiterite.	Coal.	Galena.	Gold.	Titaniferous Iron Ore.	Various.
39	1	9	1	4	2	6	7

### Liquors.

Seventy-two samples, including whisky, brandy, gin, Chinese spirits and ports, etc., were sent in for analysis.

A large number of these were examined for the Board of Licensing Justices as to whether they should be placed on the approved list of liquors allowed to be sold in public-houses.

### Methylated Spirits.

Two hundred and sixty casks, 19 drums and 563½ cases of arrack were methylated by the addition of pyridine or turpentine.

### Deleterious Drugs.

(a) *Police seizures*.—Twenty-four sets of exhibits were sent for examination by the police as compared with 25 in 1910.

The total number of articles examined was 170. This included packets of morphine and cocaine, cups, and ten hypodermic syringes in working order. The morphine and cocaine found amounted to 3,500 grains and 50 grains respectively.

(b) *Excise seizures*.—Samples were submitted by the Preventive Service in two cases, cocaine and morphine were found in both.

**Toxicology.**

(a) *Stomachs, stomach washings, etc.* :—

Details of these are given below.

From.	Opium.	Arsenic and Mercury.	Carbolic Acid.	Morphine.	Arsenic.	Alcohol.	Ptomaines.	No poison present.	Total.
General Hospital, Singapore ...	...	...	1	2	...	2	5	11	21
T. T. S. Hospital, Singapore ...	1	1	...	...	...	3	...	5	10
Medical Officer, Malacca ...	...	...	...	...	1	2	...	2	5
Acting Principal Medical Officer, Johore ...	...	...	...	...	...	...	...	1	1
Total ...	1	1	1	2	1	7	5	19	37

(b) *Other poisoning cases.*—An exhibit from Malacca was found to be a mixture of treacle and ant-killer. In a case of suicide a bottle of carbolic disinfectant was received. A decoction of the poisonous Mauritius beans was sent from Johore. In a case of suspected poisoning a number of exhibits including strychnine, morphine and strong hydrochloric acid were sent by the police.

**Bloodstains.**

Four sets of exhibits consisting of 31 articles were received for examination from the Chief Police Officer, Malacca, and one exhibit from the Chief Police Officer, Singapore.

**Urine.**

Thirteen samples were sent in for analysis.

**Water.**

Twenty-five samples of which seven came from Malacca were analysed as to their suitability for drinking and domestic purposes, of these six were condemned, nine reported as doubtful and the rest good.

Seven samples were reported upon for boiler purposes, one for its action upon rubber and one for the percentage of sea water.

**Miscellaneous.**

Other samples sent in for analysis and report not included in the above were :— 12 of mud, 8 of soil, 7 of Bombay twist for supposed damage by sea-water, 6 of gutta, 5 each of rice and crude acid, 4 each of anti-opium pills, sewage effluent and stomach contents (for acidity), 3 each of oil cake and water, 2 each of quinine sulphate, beer, soya beans, solder, milk, sealing wax and cable and 1 each of lubricating oil, ghee, rubber, lighthouse oil, fireworks, zinc, butter, alloy, skin in a shooting case, dubbin, guano and vegetable oil.

**Staff.**

I returned from leave and resumed the duties of my appointment on September 20th, Mr. J. C. COWAP who acted for me during my absence returned to Penang on November 4th and Mr. J. W. HADDON who had acted as Deputy Government Analyst, Penang, returned to Singapore on November 23rd.

**Government Analyst's Department, Penang.**

REPORT BY MR. J. C. COWAP, B. SC., F. I. C., *Deputy Analyst, Penang.*

The work done in this Department during 1911 shows a considerable increase over that done in previous years.

The number of reports issued on general analytical work during 1911 was 468, together with 68 reports on petroleum tested.

The total revenue was \$5,390.21, compared with \$4,037.10 collected during 1910.

The subjoined table gives details of revenue and expenditure. Details of the corresponding items of revenue for 1910 are included for comparison.

Revenue.	1910.	1911.	Expenditure 1911.
	\$ c.	\$ c.	\$ c.
Petroleum inspection fees	2,440 00	2,650 00	Personal Emoluments 4,952 34
Government Analyst's fees	927 00	2,289 00	Stores ... 181 08
Certificate for export of petroleum fees ...	669 50	449 00	Miscellaneous ... 322 84
Deposit Account ...	0 60	2 21	Transport, Travelling & Personal Allowances ... 41 69
Total ...	4,037 10	5,390 21	Total ... 5,497 95

It will be observed that the increase of total revenue is almost exactly accounted for by the increase in Government Analyst's fees.

#### Petroleum.

(a) *Kerosine*.—Fifty-five consignments of kerosine were tested as to the flash point. On no occasion was petroleum not previously declared to be dangerous found to flash below the standard temperature (73°F.).

Particulars of petroleum imported and tested are given in the following table:—

Description of oil.	No. of Consignments.	Tins.	Tons.
<i>Case oil.</i>			
American oil ... { Devoes ...	3	75,000	...
... { Sylvan Arrow ...	5	113,000	...
Langkat oil ... { Coast Light ...	1	100	...
... { Dragon ...	19	320,532	...
... { Lamp Glass ...	7	39,627	...
<i>Bulk oil.</i>			
Aroe Bay ...	3	...	1,560.19
Balik Papan ...	3	...	1,095.71
Pulau Brandon ...	9	...	4,258.04
Pulau Samboe ...	1	...	525.02
Pulau Soe-Soe ...	4	...	3,157.05
Total ...	55	548,259	10,596.64



(b) *Dangerous Petroleum*.—Sixteen consignments of dangerous petroleum representing 197,418 gallons were imported during the year and in all cases the containing receptacles were examined and found to comply with the Rules under the Petroleum Ordinance.

(c) *Petroleum Residue*.—Two consignments representing 5,358·7 tons were imported. In both cases the flash point was found to be over 150° F.

### Explosives.

Six consignments of explosives were tested on importation and were found to pass the tests prescribed by the Rules under the Explosives Ordinance. The quantities imported are given below:—

				<i>No. of cases.</i>	<i>Weight in lbs.</i>
				—	—
Gelignite	...	...	...	1,940	97,000
Dynamite	...	...	...	310	15,500
Blasting Gelatine	...	...	...	10	500

### Counterfeit Coins.

Exhibits in 13 cases of counterfeit coining were received from the Police. These included the usual plaster of Paris moulds, Britannia metal spoons and other implements used in coining. Of the 159 coins examined, only 12 were found to be genuine, the remainder being made from Britannia metal.

### Deleterious Drugs.

Eighty-one sets of exhibits were received from the Police. They comprised 1,095 exhibits, including hypodermic syringes, needles, packets of morphine and cocain, etc. The total weight of morphine hydrochloride dealt with was 2,398 grains, and that of cocain hydrochloride 1,062 grains.

### Toxicology.

*Stomachs, etc.*—Ten stomachs, etc., in cases of suspected poisoning were received from the local hospitals. Of these three were found to contain opium, one mercury and one arsenic. In five no poison was detected.

*Other poisoning cases.*—Articles connected with four other poisoning cases were sent for analysis. In one case carbolic acid was detected and in one, opium.

### Blood Stains.

Eighteen sets of exhibits, comprising 59 articles were received from the Police to be examined for blood stains. Blood was found in the majority of cases.

### Water.

Forty-one samples of water were examined during the year. Several of these were reported as being contaminated with sewage, and one was found to contain lead. Experiments were also carried out on the use of alum for the sedimentation of water. A series of analyses of samples of water taken periodically from Bukit Panchor Reservoir, Nibong Tebal, has been commenced with a view to discovering any variation in the quality of the water.

### Liquors.

The spirit strengths of 723 samples of liquor received from the Government Monopolies Department were determined for duty purposes.

Thirty-five other samples were examined in connexion with various Police cases.

The complete analysis of eight samples of European spirits was undertaken, chiefly for the information of the Board of Licensing Justices.

### Methylated Spirit.

Nine consignments of spirits were examined and certified to be properly methylated.

### Chandu.

Ninety-four sets of exhibits were received from the Government Monopolies Department for proof as to whether illicit chandu were present.

Three samples of the Monopoly Chandu were received for analysis in cases where it was alleged that the chandu had been adulterated after leaving the factory. In all cases the suspicion was found to be incorrect.

### Miscellaneous.

The samples falling under none of the above heads included 34 of guano, 6 of mineral, 2 of soil, 5 of liquid fuel, postage stamps suspected of having been previously used, a torch and some lalang leaves in a case of mischief by fire, a sheet of rubber, a coat and packet of pepper in a case of causing hurt, a piece of asafœtida which was supposed to be poison, milk, samples of flour, hydrofluoric acid, paraffin wax and many others.

### Staff.

Mr. J. W. HADDON, B. Sc., F. I. C., acted as Deputy Analyst from the beginning of the year until November 6th, when I took over the duties of the appointment.

## APPENDIX Ƴ.

### Annual Report of the Straits and Federated Malay States Government Medical School for 1911.

REPORT BY DR. R. D. KEITH, *Principal*.

#### A.

##### *Full Course for the L. M. S. Diploma.*

1. The number of students entering was above the average and in quality there was a decided improvement on some of the former years. Out of 22 who entered 16 had obtained the Senior Cambridge Certificate. Nine were Chinese, 4 Eurasians, 4 Tamils, 3 Malays, 1 Japanese and 1 Arab. This 1911 class is certainly more than usually intelligent. The average age is 19 years.

Ten students obtained their diploma during the year bringing the total number of licentiates up to 23, of whom there are:—

In practice	...	...	...	...	10
In the Federated Malay States Government Service				...	8
„ Straits			„	...	4
„ Johore			„	...	1

Seven students have left the school in the past year on account of having made unsatisfactory progress or for other reasons. One left to study in Madras.

The total number of licentiate students on the books at the end of the year was 78 of whom 32 were Tamils, 26 Chinese, 8 Eurasians, 4 Malays and 8 of other races.

2. *Resignations, etc.*—One full course Chinese student and 2 Tamil Hospital Assistants died during the past 12 months. Sixty students have left before completing their course during the past 6 years, some on account of having made unsatisfactory progress, others on account of ill-health and others for divers reasons.

3.

*Results of Examination.*

Examination.	May. No. Entered.	Percentage rejected in one or more subjects.	December. Entered.	Percentage Rejected.
<i>1st Year:—</i>				
Chemistry ...	...	...	} 19	38·4%
Biology ...	...	...		
Physics ...	...	...		
Osteology ...	...	...		
<i>2nd Year:—</i>				
Anatomy ...	} 12	41·6%	12	41·6%
Physiology ...				
<i>3rd Year:—</i>				
Materia Medica ...	} 3	33·3%	14	14·2%
Pharmacy ...				
<i>4th Year:—</i>				
Pathology ...	} 7	42·8%	9	33·3%
Medical Jurisprudence ...				
Hygiene ...				
<i>5th Year:—</i>				
Medicine ...	} 9	33·3%	11	63·6%
Surgery ...				
Midwifery ...				

Percentage of rejections in final examination in last two years:—

<i>Rejections.</i>				
1910, May ...	...	...	...	36·3 per cent.
„ December ...	...	...	...	61·1 „
1911, May ...	...	...	...	33·3 „
„ December ...	...	...	...	63·6 „

The percentages of rejections in 1910 in the final examination of some of the British Medical Schools are here given for comparison:—

Birmingham ...	...	...	...	53·8 per cent.
Queens (Belfast) ...	...	...	...	47·7 „
London ...	...	...	...	41·9 „
Edinburgh ...	...	...	...	27·4 „
Durham ...	...	...	...	16·6 „
Glasgow ...	...	...	...	22·5 „
St. Andrews ...	...	...	...	33·3 „
Dublin ...	...	...	...	23·7 „

When it is borne in mind that a considerable percentage of the inferior students has been weeded out during their early years and that only the more intelligent and industrious arrive at the stage of the final examination, we must conclude that the standard is being maintained at a sufficiently high level.

4. Owing to the retirement of Mr. H. N. RIDLEY, C.M.G., F.R.S., M.A., it was found to be impossible to conduct a class in Botany, and Biology had to be substituted. Dr. H. H. KING, I.M.S., lectured in this subject. The other classes were conducted as usual.

5. *Staff, etc.*—Dr. LIVESEY went on leave on 12th January and returned on September 21st, 1911. He obtained while in Europe the Fellowship of the Royal College of Surgeons of Edinburgh. Dr. G. B. MCHUTCHISON took his work in his absence and also acted as lecturer in Surgery during the short term.



This subject was taken for 5 months in the long term by Dr. J. GRAY, Resident Medical Officer, Tan Tock Seng Hospital. He went on leave in the end of November. The constant changes in the lectureship in this subject have naturally had a detrimental effect on the students. There must be continuity of teaching to ensure success. This matter is at present under consideration and it is hoped that a new and satisfactory arrangement may be made. It is in connexion with clinical work that the deficiency has been most felt. The formal lectures are of much less importance. In Medicine the results have been much better than in Surgery owing to the fact that in Dr. FINLAYSON we have a teacher of Clinical Medicine of exceptional ability who has given continuous instruction for years. If it had not been for his help Clinical Medicine might not have been in a much better condition than Clinical Surgery. The Council trusts that the King EDWARD VII Memorial Fund, although it has been much less successful than was anticipated, may do something towards improving the staff of the School. Dr. F. DENT was on leave during the greater part of the year, his place as lecturer in Chemistry and Physics being taken by Mr. J. C. COWAP. During the short term Drs. GALLOWAY and SUGARS gave courses of lectures on General Medicine. In the course of the long session a series of lectures on Tropical Medicine was given by Dr. W. H. FRY and on Diseases of the Nervous System by myself. In Dr. GILMORE ELLIS' absence the lectureships in Forensic Medicine and Mental Diseases have been taken by Dr. H. J. GIBBS. Dr. FINLAYSON gave a lantern demonstration illustrative of Tropical Diseases.

In addition to organizing and administrative work it has been expedient for me to teach Physiology and Junior Clinical Medicine, to give lectures on the Diseases of the Nervous System and to continue to work on cataloguing, labelling, etc., of the specimens in the Museum. It is manifestly impossible to do justice to all these things at the same time.

6. *Buildings*.—The TAN TECK GUAN building, erected in memory of his father by Mr. TAN CHAY YAN, was opened by the Hon'ble E. L. BROCKMAN, C.M.G., in June, 1911, in connexion with the Coronation celebration.

It has proved exceedingly useful. A brass tablet to the memory of the late TAN TECK GUAN, Esq., has been erected by the School Council in the building and the lists in Chinese characters, of the original subscribers to the school funds have also been incorporated in the walls.

7. *Recreation, etc.*—The students' club has been in a very flourishing condition. The students have conducted it entirely themselves and appear to have been very successful. The tennis court has been repaired and has improved during the year. A football field was leased in the neighbourhood of Neil Road. It was not altogether satisfactory. No proper cricket pitch could be obtained but a temporary one was made use of near the General Hospital. The bearer company of the S. V. C., which draws its members from the Medical students and student Hospital Assistants, was at full strength. The attendances at the drills were very good and the members seemed to be interested in their work. They made a creditable appearance at the annual inspection. Capt. N. BLACK was in command of the company during the year, with Dr. MCHUTCHISON and myself as Lieutenants.

8. The Pathological specimens have now been housed in the new building. A large number have been added, some of them being of great interest. The work has been divided between the Pathological Department and myself. The catalogue is being extended and it is hoped that in course of time it may be printed.

9. *General*.—A considerable amount of new furniture was added during the year and a number of new instruments, etc.

10. The reports on the Assistant Surgeons and Hospital Assistants who have gone into the Government Service have been good on the whole.

The weakest point appears to be Clinical Surgery. Complaints have been made that the Hospital Assistants are not sufficiently trained in Meteorology and that they are not expert in the examination of blood films for Malaria. These points are being attended to but as regards the examination of blood for Malaria by Hospital Assistants I have no hopes of being able to teach them in the time at our disposal, more than the most elementary technical methods.

11. *Hospital Assistants*.—On the whole this class of student is not very satisfactory and they do not show the same aptitude for general improvement which usually manifests itself after a time in those taking the full course. During the year 24 joined the

course. Three of these have resigned leaving 21; 18 of these are Tamils and three Eurasians: Ten have completed the course during 1911 bringing the total number who have received their certificates up to 40.

12. I have been in communication with the Secretary of the Royal College of Surgeons of Edinburgh and with the Registrar of the General Medical Council of Great Britain on the subject of recognition but nothing definite has yet resulted, I expect to hear from the latter body soon what steps we should take to obtain recognition.

13. The conduct and attendance of the students were good.

14. The Council is much indebted to the General Practitioners and Government Medical Officers for their continued interest in the school.

15. TAN CHENG KEE, Esq., was appointed a member of the School Council in the place of the late CHOA GIANG THYE, Esq.

## APPENDIX K.

### Pathological Department.

REPORT BY DR. G. A. FINLAYSON, *Government Pathologist.*

#### Laboratory.

During the year, 895 specimens were examined, as compared with 879 in 1910 and 1,258 in 1909, 744 being sent in from the various Government Institutions, while 151 were submitted by private practitioners.

#### MALARIA.

The parasite was demonstrated in 44 blood films, the majority as usual showing a subtertian infection. In 93 instances no parasite was observed.

#### WIDAL REACTION.

In 157 instances, as compared with 82 in 1910 and 202 in 1909, there was a positive reaction, this again representing a somewhat lesser number of cases of Enteric Fever as in several cases the blood was examined on more than one occasion. The reaction was negative in 424 specimens.

#### *Monthly incidence.*

January	10	May	8	September	25
February	12	June	6	October	15
March	10	July	10	November	32
April	10	August	13	December	6
	—		—		—
...	42		37		78
	—		—		—

The only noticeable feature is the marked rise towards the latter part of the year, there being almost as many positive reactions in the three months September to November as in the rest of the year.

#### TUBERCULOSIS.

In 28 samples of sputa T. B. were demonstrated; in 67 others none were observed.

#### DIPHTHERIA.

Six swabs from the fauces of suspected cases of Diphtheria were examined, but from none was the specific organism cultivated.



## GONORRHŒA.

Twenty smears of urethral or vaginal discharge were examined; in 8 the diplococci were noted.

## VARIOUS.

Other samples included three of urine for casts, etc., 23 of fæces for amœbæ or ova, 6 blood films for differential count, several pieces of tissue for microscopical diagnosis and two positive leprosy smears.

## WATER—MUNICIPAL SUPPLY.

Fifty-two specimens were examined, the weekly sample being taken from standpipes scattered over the Municipal area. The standard remains fairly constant, the average number of micro-organisms per c.c. being 305 on agar and 280 on gelatine medium, as compared with an average of 240 on agar in 1910. In MACCONKEY'S medium '25 c. c. produces gas and acid within 24 hours.

## MORTUARY.

*Tan Tock Seng Hospital.*

Number of autopsies performed, 1,734.

## RETURN SHOWING THE IMMEDIATE CAUSE OF DEATH.

Beri-beri ...	...	...	57	Diseases of the genito-urinary			
Pneumonia, lobar ...	...	...	80	system ...	...	...	60
Other diseases of the respiratory				Various septic conditions	...	...	108
system ...	...	...	71	Tetanus ...	...	...	1
Malaria ...	...	...	434	Syphilis ...	...	...	13
Poisoning and accidents	...	...	25	Plague ...	...	...	2
Tuberculosis	...	...	231	Black water fever	...	...	1
Enteric fever	...	...	33	Ankylostomiasis	...	...	29
Dysentery	...	...	364	Leprosy ...	...	...	1
Cholera ...	...	...	8	Schistosomiasis	...	...	8
Other diseases of the alimentary				New growth, malignant	...	...	14
canal ...	...	...	47	Shock ...	...	...	4
Suppurative peritonitis	...	...	45	Senility ...	...	...	5
Diseases of the nervous system	...	...	44	Still birth ...	...	...	1
Diseases of the circulatory system	...	...	48				

## RETURN SHOWING INCIDENCE OF DISEASE.

*General Diseases.*

Beri-beri ...	...	...	59	Sapræmia ...	...	...	49
Cholera ...	...	...	8	Septicæmia	...	...	6
Enteric fever	...	...	46	Black water fever	...	...	1
Dysentery	...	...	532	Splenic anæmia	...	...	6
Tetanus ...	...	...	2	Sprue ...	...	...	1
Pneumonia	...	...	122	Still birth ...	...	...	1
Malaria ...	...	...	515	Senility ...	...	...	4
Plague ...	...	...	2	Syphilis ...	...	...	18
Leprosy ...	...	...	1	Ankylostomiasis	...	...	51
Pyæmia ...	...	...	13	Schistosomiasis	...	...	8

## LOCAL DISEASES.

*A.—Nervous System.*

Meningitis (a) septic	...	...	18	Cerebral abscess	...	...	1
" (b) tubercular	...	...	2	Cerebral gumma	...	...	3
" (c) cerebro-spinal	...	...	6	Myelitis, acute	...	...	4
Pachymeningitis, chronic	...	...	3	Tabes dorsalis	...	...	1



*B.—Circulatory System.*

Hæmorrhage, intracranial ...	17	Endocarditis, chronic (a) aortic ...	31
Thrombosis (a) cerebral with softening ...	14	(b) mitral ...	10
(b) portal vein ...	3	(c) ventricular wall ...	3
(c) splenic vein ...	1	Endocarditis, ulcerative (a) aortic ...	7
Aneurism of aorta (a) thoracic ...	6	(b) mitral ...	2
(b) abdominal ...	1	(c) pulmonary ...	1
Aneurism, popliteal ...	1	(d) ventricular wall ...	3
of pulmonary artery ...	1	Cardiac syncope—fatty heart ...	2
of ventricular wall ...	1	Marked dilatation of aorta ...	8
Pericarditis (a) acute ...	20	Advanced atheroma ...	234
(b) chronic ...	7		
(c) tubercular ...	4		

*C.—Respiratory System.*

Bronchitis (a) acute ...	5	Pyopneumothorax ...	11
(b) chronic ...	6	Tuberculosis (a) general ...	14
Broncho-pneumonia ...	82	(b) acute miliary ...	4
Bronchiectasis ...	8	Tuberculosis of lung (a) active ...	273
Pulmonary œdema—marked ...	29	(b) quiescent ...	28
collapse ...	12	of larynx ...	58
gangrene ...	18	Pleuritis (a) recent with adhesions ...	72
abscess ...	2	(b) chronic with adhesions ...	278
infarct ...	5	(c) tubercular ...	268
Pneumonia, lobar ...	122	Anthraxis ...	3
Empyema ...	48	Marked Emphysema ...	170
Pneumothorax ...	2		

*D.—Digestive System.*

Gastric ulcer ...	18	Tubercular ulceration of tongue ...	3
Duodenal ulcer ...	5	"                  tonsil ...	3
Appendicitis, subacute ...	8	"                  gut ...	132
Cholangitis, acute septic ...	30	Enteric fever ...	46
Cholecystitis " " ...	21	Enterocolitis, acute ...	33
Biliary Calculi ...	50	Intestinal obstruction ...	5
Hepatic abscess ...	21	Intussusception ...	2
gumma ...	15	Peritonitis (a) suppurative ...	89
cirrhosis ...	77	(b) chronic ...	6
Congenital cyst of liver ...	2	(c) tubercular ...	12
Perihepatitis, chronic ...	36	Dysentery, amœbic (a) acute ...	106
Tuberculosis of liver ...	10	(b) chronic ...	234
Splenic abscess ...	3	"                  bacillary (a) acute ...	88
gumma ...	15	(b) chronic ...	63
infarct ...	28	"                  mixed infection	
Tuberculosis of spleen ...	41	(a) acute ...	8
Perisplenitis, chronic ...	61	(b) chronic ...	26
Malarial pigmentation of spleen ...	359	"                  malarial ...	7
Parotitis, acute ...	1	Schistosome infection of gut ...	19

*E.—Genito-Urinary System.*

Cystitis, acute ...	13	Pyelonephritis ...	16
Enlarged prostate ...	4	Pyonephrosis ...	2
Prostatic calculus ...	1	Nephritis, parenchymatous	
Renal abscess ...	1	(a) acute ...	24
calculi ...	16	(b) chronic ...	22
infarct ...	2	"                  interstitial, chronic ...	52
gumma ...	1	Uræmia ...	11
Tuberculosis of kidney (a) acute ...	11	Stricture of urethra ...	4
(b) quiescent ...	1	Extravasation of urine ...	3
Perinephric abscess ...	1	Urinary fistula ...	3
Hydronephrosis ...	1	Recto-vesical fistula ...	1
Pyelitis ...	1		

*F.—Diseases of the Bones and Joints.*

Necrosis of jaw ... ..	2	Tubercular disease of hip joint ...	6
„ tibia ... ..	3	Ankylosed joints ... ..	5
„ fibula ... ..	1	Synovitis, acute ... ..	8
„ femur ... ..	1	Arthritis, septic ... ..	1
Caries of spine ... ..	4	Otitis media, acute ... ..	1
„ tarsal bones ... ..	1	Gumma of sternum ... ..	2

*G.—New Growth—Malignant.*

Epithelioma of penis ... ..	1	Cancer of stomach ... ..	2
„ arising from scars ... ..	4	„ glands of neck ... ..	4
Cancer of liver ... ..	7	Mediastinal sarcoma ... ..	1
„ lung ... ..	3		

*Benign.*

Gastric polyp ... ..	4	Sebaceous Cyst ... ..	1
Angioma of liver ... ..	5	Fibroma of scrotum ... ..	1
Parotid cyst ... ..	1		

*H.—Affections produced by External Causes.*

Fracture of skull ... ..	4	Rupture of stomach ... ..	1
„ spine ... ..	2	„ jejunum ... ..	1
„ femur ... ..	6	Laceration of lung ... ..	1
„ tibia and fibula ... ..	2	Strangulation ... ..	5
„ humerus ... ..	1	Cut throat ... ..	1
„ clavicle ... ..	1	Stab wounds ... ..	3
„ scapula ... ..	1	Cerebral laceration ... ..	2
„ lower jaw ... ..	1	Surgical emphysema ... ..	2
Rupture of spleen ... ..	7	Alcoholic poisoning ... ..	1

*K.—Varied conditions.*

Abscess of thigh ... ..	4	Extensive ulceration (a) trunk ...	2
„ gluteal ... ..	3	„ (b) lower extre-	
„ subdiaphragmatic ... ..	1	mity ... ..	23
„ perineal ... ..	1	Extensive bed sores ... ..	15
„ iliopsoas ... ..	6	Spinal curvature (a) kyphosis ...	4
„ Douglas' pouch ... ..	1	„ (b) scoliosis ... ..	2
„ perirectal ... ..	1	Tubercular disease of lymphatic	
„ mastoid ... ..	1	glands (a) active bronchial ...	20
Cellulitis, acute (a) trunk ...	3	„ cervical ... ..	2
„ (b) upper extremity ...	2	„ mesenteric ... ..	25
„ (c) lower extremity ...	5	„ mediastinal ... ..	1
Gangrene (a) trunk ... ..	2	(b) quiescent cervical ... ..	1
„ (b) upper extremity ...	1	„ mesenteric ... ..	1
„ (c) lower extremity ...	37		

*Mortuary, Sepoy Lines.*

Total number of autopsies performed, 413.

## RETURN SHOWING IMMEDIATE CAUSE OF DEATH.

Beri-beri ... ..	18	Diseases of nervous system ...	15
Pneumonia, lobar ... ..	16	„ circulatory system ... ..	27
Other diseases of the respiratory		„ genito-urinary system ...	13
system ... ..	25	Various septic conditions ...	18
Malaria ... ..	62	Plague ... ..	7
Poisoning and accidents ... ..	63	Small-pox ... ..	1
Tuberculosis ... ..	14	Tetanus ... ..	3
Enteric fever ... ..	32	Ankylostomiasis ... ..	2
Dysentery ... ..	47	New Growth, malignant ... ..	7
Cholera ... ..	7	Congenital disease ... ..	3
Suppurative peritonitis ... ..	19	Unknown—too decomposed ...	5
Other diseases of the alimentary canal	9		

## RETURN SHOWING INCIDENCE OF DISEASE.

*General Diseases.*

Beri-beri ...	...	21	Sapræmia ...	...	8
Cholera ...	...	7	Septicæmia ...	...	5
Enteric fever ...	...	44	Splenic anæmia ...	...	6
Dysentery ...	...	67	Pernicious anæmia ...	...	1
Tetanus ...	...	3	Acute infectious jaundice ...	...	1
Pneumonia ...	...	31	Ankylostomiasis ...	...	2
Malaria ...	...	81	Lymphatic leukæmia ...	...	1
Small-pox... ..	...	1	Congenital anasarca ...	...	1
Plague ...	...	7	Still birth ...	...	1
Pyæmia ...	...	3			

## LOCAL DISEASES.

*A.—Nervous System.*

Meningitis (a) septic ...	...	2	Convulsions ...	...	1
„ (b) tubercular ...	...	1	Compression paraplegia ...	...	1
„ (c) cerebro-spinal ...	...	7	Cerebral gumma ...	...	1
Myelitis, acute ...	...	2	„ abscess ...	...	1
Shock ...	...	3			

*B.—Circulatory System.*

Hæmorrhage, cerebral ...	...	3	Peri arteritis, syphilitic ...	...	1
Thrombosis „ ...	...	3	Endocarditis, chronic (a) aortic ...	...	10
Aneurism of thoracic aorta ...	...	5	„ (b) mitral ...	...	5
Pericarditis (a) acute ...	...	7	Cardiac syphilis ...	...	1
„ (b) chronic ...	...	3	Tuberculosis of heart ...	...	1
Cardiac syncope (a) fatty heart ...	...	3	Perforated septum ...	...	1
„ (b) acute cardiac dilatation ...	...	3			

*C.—Respiratory System.*

Bronchitis (a) acute ...	...	6	Anthraxis ...	...	1
„ (b) chronic ...	...	1	Tuberculosis of lung (a) active ...	...	22
„ (c) capillary ...	...	1	„ (b) quiescent ...	...	8
Broncho-pneumonia ...	...	33	Tuberculosis of larynx ...	...	4
Bronchiectasis ...	...	1	Pleuritis (a) recent with adhesions ...	...	41
Pulmonary œdema ...	...	1	„ (b) old „ ...	...	49
„ collapse ...	...	4	„ (c) tubercular ...	...	24
„ gangrene ...	...	1	„ (d) with effusion ...	...	5
Pneumonia, lobar ...	...	31	„ (e) septic ...	...	1
Empyema ...	...	16			

*D.—Digestive System.*

Appendicitis, acute ...	...	1	Perisplenitis, chronic ...	...	8
Hepatic abscess (a) amœbic ...	...	5	Tuberculosis of spleen ...	...	5
„ „ (b) septic ...	...	1	Splenic infarct ...	...	5
Cholangitis, acute septic ...	...	1	Enteric fever ...	...	44
Cholecystitis „ „ ...	...	1	Entero-colitis, acute ...	...	2
Biliary calculi ...	...	2	Intestinal obstruction ...	...	1
Perforation of gall-bladder ...	...	1	Strangulated hernia ...	...	1
Hepatic cirrhosis ...	...	23	Marasmus ...	...	1
Perihepatitis, chronic ...	...	10	Dysentery (a) bacillary, acute ...	...	13
Tuberculosis of liver ...	...	2	„ (b) „ chronic ...	...	1
Peritonitis, acute (a) serous ...	...	1	„ (c) amœbic, acute ...	...	30
„ „ (b) suppurative ...	...	26	„ (d) „ chronic ...	...	14
„ „ (c) chronic ...	...	4	„ (e) „ quiescent... ..	...	4
„ „ (d) tubercular ...	...	4	„ (f) mixed infection ...	...	5
Perforated duodenal ulcer ...	...	1	Malarial pigmentation in spleen ...	...	89
Tuberculosis of gut ...	...	8	Schistosome infection of gut ...	...	4
Splenic abscess ...	...	1			



*E.—Genito-Urinary System.*

Abortion ...	...	1	Nephritis (a) parenchymatous, acute	3
Cystitis, acute	...	5	"    (b)                    "    chronic	17
Calculus, vesical	...	1	"    (c) interstitial, chronic	17
"    renal	...	1	"    (d) septic	3
Perforation of bladder...	...	1	Pyelitis	1
Hernia testis	...	1	Pyelonephritis	1
Sloughing of perineum	...	1	Pyonephrosis	2
Abscess of kidney	...	1	Stricture of urethra	1
Tuberculosis of kidney	...	1		

*G. & K.—Varied conditions.*

Cancer of œsophagus	...	1	Fibroma of parotid	1
"    stomach	...	1	Congenital absence of left kidney	1
"    liver	...	1	Abscess of thigh	1
"    glands of neck	...	1	Iliopsoas abscess	1
Mediastinal sarcoma	...	2	Retropharyngeal abscess	1
Endothelioma of peritoneum	...	1	Cellulitis, acute	1
Angioma of liver	...	1		

*H.—Affections produced by external causes.*

Fracture of skull	...	10	Rupture of urethra	1
"    spine	...	1	Stab wound, heart	3
"    pelvis	...	3	"    liver	1
"    femur	...	3	"    carotid	1
"    fibula	...	1	"    stomach	1
"    radius and ulna	...	2	"    lung	1
"    clavicle	...	1	Gunshot wound of neck	1
"    ribs	...	6	Cut throat	3
"    sternum	...	1	Strangulation	3
"    lower jaw	...	1	Surgical emphysema	1
Dislocation of cervical vertebræ	...	1	Cerebral laceration	1
"    shoulder joint	...	1	Asphyxia	2
"    elbow	...	1	Burns	2
Laceration of kidney and liver	...	1	Drowning	2
"    foot	...	1	Poisoning, alcohol	1
Rupture of spleen	...	20	"    opium	1
"    liver	...	1	"    morphine	1
"    gut	...	2	"    carbolic acid	1
"    vesical bladder	...	2	"    ptomaine	5

**Quarantine Camp.**

Total number of autopsies performed, 191.

## RETURN SHOWING IMMEDIATE CAUSE OF DEATH.

Beri-beri	...	2	Strangulated hernia	1
Pneumonia, lobar	...	2	Gastro-enteritis, acute	4
Broncho-pneumonia	...	2	Hepatic abscess	1
Tuberculosis of lung	...	2	"    cirrhosis	2
Empyema	...	1	Uræmia	3
Malaria	...	17	Meningitis, septic	2
Strangulation	...	1	Small-pox	1
Septicæmia	...	2	Plague	20
Enteric fever	...	5	Cholera	112
Dysentery	...	9	Ruptured ectopic gestation	1
Suppurative peritonitis	...	1		

## RETURN SHOWING INCIDENCE OF DISEASE.

*General Diseases.*

Cholera	...	...	112	Enteric fever	...	...	6
Plague	...	...	20	Malaria	...	...	28
Small-pox	...	...	1	Dysentery	...	...	12
Beri-beri	..	...	2	Ankylostomiasis	...	...	3

## LOCAL DISEASES

*A.—Nervous System.*

Meningitis, septic	...	...	2	Œdema of meninges	...	...	1
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*B.—Circulatory System.*

Gumma of heart	...	...	1	Thrombosis, portal vein	...	...	1
Pericarditis, syphilitic	...	...	1	Advanced atheroma	...	...	1
Aneurism, popliteal	...	...	1				

*C.—Respiratory System.*

Pneumonia, lobar	...	...	3	Tuberculosis of lung (a) active	...	...	3
Broncho-pneumonia	...	...	4	(b) quiescent	...	...	1
Pulmonary abscess	...	...	2	Pleuritis (a) recent	...	...	2
"    infarct	...	...	1	"    (b) chronic	...	...	14
Empyema	...	...	1	"    (c) tubercular	...	...	3
				Tubercular bronchial gland	...	...	1

*D.—Digestive System.*

Appendicitis, subacute	...	...	1	Intussusception	...	...	2
Strangulated inguinal hernia	...	...	1	Peritonitis (a) septic, general	...	...	1
Cholangitis and Cholecystitis,				"    (b) chronic, localised	...	...	2
chronic	...	...	1	Dysentery (a) amœbic, acute	...	...	1
Biliary calculi	...	...	2	"    (b) bacillary	...	...	10
Hepatic cirrhosis	...	...	6	"    (c) mixed	...	...	1
"    abscess	...	...	1	Tubercular ulceration of small gut			
Perihepatitis, chronic	...	...	2	(a) active	...	...	1
Abscess of spleen	...	...	1	(b) quiescent	...	...	1
Gumma of spleen	...	...	1	Enteric fever	...	...	6
Perisplenitis, chronic	...	...	9	Gastro enteritis, acute	...	...	3
Malarial pigment in spleen	...	...	20	Entero-colitis, acute	...	...	1

*E.—Genito-Urinary System.*

Nephritis, parenchymatous (a) acute	2	Renal calculus	...	...	1
(b) chronic	2	Uræmia	...	...	3
"    interstitial, chronic	1	Ectopic gestation	...	...	1

*K.—Varied Conditions.*

Extensive ulceration of leg	...	2	Rupture of spleen	...	...	1
Gangrene of leg	...	1	Horse shoe kidney	...	...	1
"    penis	...	1				

## General Diseases.

1. *Beri-beri*.—There has been a distinct decrease in the case incidence as compared with previous years. Of 82 cases which exhibited the typical lesions, 77 or 94 per cent died of the disease.

2. *Enteric Fever*.—On the other hand there has been a great rise in the incidence and mortality of this infection. Of 96 cases as compared with 51 in 1910, 70 died of toxæmia; in 23 or 24 per cent perforation of the gut had taken place with a resultant suppurative peritonitis which was returned as the immediate cause of death.

3. *Malaria*.—In 624 autopsies, as compared with 419 in 1910, malarial parasites were demonstrated in the spleen or peripheral blood; in a further 468, as compared with 265 in 1910, the spleen showed pigmentation from a previous infection, so that 1,092 or 46·5 per cent of a total of 2,338 exhibited signs of malaria.

Five hundred and thirteen or 82 per cent of those in which parasites were observed died of the infection. Only one case of Blackwater Fever was noted.

4. *Plague* 29.—An unusually large number of cases, all of the bubonic type and in the majority of instances with the lesions confined to the femoral and iliac glands, was observed during the year. The greater part occurred in the latter months. A systematic examination of rats was again instituted in December but the number examined was insufficient to demonstrate in what percentage the epizootic disease probably occurs. This will be dealt with in the report for 1912.

5. *Cholera* 127.—In the greater number of those seen alive death occurred in acute stage soon after admission into the Quarantine Camp; 29 had been injected intravenously with a hypertonic solution of saline.

6. *Dysentery*.—Of the 418 cases showing the lesions acute or chronic of amoebic dysentery 26 or slightly over 6 per cent had an abscess of the liver. Looking at the returns from the General Hospital and Tan Tock Seng's Hospital it has to be noted that 906 or almost 42 per cent out of a total of 2,149 died either of one or the other markedly preventable diseases Malaria or Dysentery. Further 1,636 or 75 per cent of the same total either died of one or other of the diseases or exhibited signs at the autopsy that they had previously been sufferers from one or the other complaint. As has been recorded in previous reports a great percentage of these cases die within a short time after admission, and it is greatly to be regretted that, in the instance of Dysentery, the destruction of the mucosa is usually so extensive that any remedial treatment appears to be almost hopeless. What is astonishing is that such patients remain so long alive with simply remnants of mucosa in the lower bowel, whilst the ulcers in many instances have eroded the peritoneal lining.

## 7. PNEUMONIA.

### *Lobar incidence—Acute.*

Right upper	...	...	15	Left upper	...	...	3
„ „ and middle	...	...	9	„ lower	...	...	26
„ „ and lower	...	...	2	Both lobes	...	...	5
„ middle	...	...	4				
„ „ and lower	...	...	8				
„ lower	...	...	13				
All lobes	...	...	13				

### *Lobar incidence—Chronic.*

Right upper	...	...	5	Left upper	...	...	0
„ „ and middle	...	...	1	„ lower	...	...	18
„ „ and lower	...	...	0	Both lobes	...	...	2
„ middle	...	...	5				
„ „ and lower	...	...	4				
„ lower	...	...	2				
All lobes	...	...	5				

As usual there has to be recorded the accompanying inflammations of the varied serous membranes.

## Local Diseases.

### A.

Several sporadic cases of cerebro-spinal meningitis were observed; at no time did the disease assume an epidemic form.

### C.

The percentage incidence of tubercular disease of the lung remains constant. As has been remarked in previous years the great majority exhibit advanced vomica formation of the pulmonary substance, only a few showing marked miliary distribution.



**D.**

In 23 cases of Hepatic Cirrhosis the ova of *Schistosomum Japonicum* were present, in 4 instances they were present in the intestinal mucosa as far as the pylorus.

Causes producing inflammations of the peritoneal sac:—

*Acute—General.*

Enteric fever ...	22	Strangulated hernia ...	1
Dysentery ...	16	Septic hydrocele ...	1
Tubercular ulcer of gut ...	1	Cholecystitis, acute ...	2
Gastric ulcer ...	3	Hepatic abscess ...	4
Duodenal ulcer ...	1	Splenic abscess ...	1
Rupture of small gut ...	2	Abscess of spinal column ...	1
„ gall bladder ...	1	Pneumococcic ...	3
„ urinary bladder ...	4	Traumatic ...	1
Appendicitis ...	4		

*Acute—Localised.*

Enteric ...	1	Pneumococcic ...	1
Dysentery ...	38	Septic hydrocele ...	1
Hepatic abscess ...	1	Ovaritis, acute ...	1
Appendicitis ...	1		

As I have called attention previously to the fact that in a large number of cases of amœbic dysentery the ulceration involves the peritoneal coat, it may be superfluous to add that in numerous instances the erosion has penetrated that layer of the bowel and produced an inflammatory reaction, to a lesser or greater extent, of the serous lining of the greater sac.

**E.**

I desire under this heading to draw attention to one point, that in a number of cases of chronic parenchymatous nephritis there has been recorded a history of chronic malaria and the viscera at autopsy exhibit marked pigmentation. On microscopic section small quantities of melanin may occasionally be detected in the renal substance, but the glomeruli and tubules show simply the ordinary appearances presented by the tissue of an individual dying from this disease.

**F. G.**

Require no amplification.

**H.**

At the Morgue, General Hospital, an examination was conducted on 18 cases of Rupture of the Spleen, of these 13 showed signs of present or past malarial infection; 7 were recorded at Tan Tock Seng's Hospital Mortuary.

In the majority simply a slight bruising of the skin with hæmorrhagic infiltration of the underlying tissues was detected over the splenic area.

**K.**

<i>Ascaris lumbricoides</i> ...	...	269
<i>Trichocephalus trichiuris</i> ...	...	56
<i>Ankylostoma duodenale</i> ...	...	163

**Distomiasis.**

The *Clonorchis Sinensis* was observed in the bile ducts of 39 cases.

**Schistosomiasis.**

As noted above the ova of the *Schistosomum Japonicum* were seen in 23 instances.

**Staff.**

There has been no change in the staff during the year under review.

## Annual Report on the Medical Department, Labuan, for the Year 1911.

REPORT BY DR. T.C. CLEVERTON, *Medical Officer.*

Table showing the estimated population, with the birth and death-rates, for the years 1909 to 1911 :—

<i>Year.</i>	<i>Estimated Population.</i>	<i>Births.</i>	<i>Deaths.</i>	<i>Birth-rate per mille.</i>	<i>Death-rate per mille.</i>
—	—	—	—	—	—
1909	8,231	183	197	22·23	23·93
1910	8,199	235	267	28·66	32·56
1911	6,545	189	183	28·87	27·97

These figures are according to the returns of the Census taken on 10th March, 1911. The total number of males was given as 3,932, females as 2,613. The different nationalities were not grouped and numbered. This is the first year since 1906, that the births have outnumbered the deaths in Labuan. There are no figures prior to 1906.

The marked decrease in the population since 1910, is due to the exodus which took place at the time of the closure of the coal mines at Coal Point early in January.

Table showing infantile mortality, and its relation to the total death and birth-rates, from 1909 to 1911 :—

<i>Year.</i>	<i>Number of deaths under one year.</i>	<i>Percentage of deaths to total death-rate.</i>	<i>Percentage of deaths to total birth-rate.</i>
—	—	—	—
1909	74	37·56	40·43
1910	76	28·08	32·34
1911	56	30·60	29·62

There were no still-births registered. One-third of the infantile mortality for 1911 was ascribed to "Fever," and one-sixth to "Convulsions."

Of the total number of deaths, 57 were ascribed to "Fever," 23 to Pulmonary Tuberculosis, 16 to Debility and Age, 10 to Beri-beri, and 6 to Dysentery.

No epidemic disease has occurred during the year. Two cases of Small-pox were isolated in a hospital building, one of these was taken from the s. s. *Marudu* and the other occurred in Labuan. Both had been vaccinated a short time previously and were mild cases.

*Port Health Work.*—There was very little during the year. Only six steamers were examined, and none were detained at the Quarantine Anchorage.

*Malaria.*—This disease is very prevalent. During the year 118 cases were admitted to hospital out of a total of 276 admissions, and 479 cases were treated as out-patients. Fifty-seven deaths were attributed to "Fever" out of a total mortality of 183, compared with 70 deaths out of a total of 267 deaths in 1910. The type of Malaria has been severe during the year under review, 31 cases being subtertian as against only 19 in 1910. Practically all new Police become infected within a month of their arrival in Labuan. Some of these cases may be relapses but many of them appear to be genuine new infections. This was strikingly evident when a number of Police were sent up from Singapore early in the year. No large anti-malarial measures were taken during the year but improvements to the drainage of Victoria have been carried out and 143 ounces of quinine distributed.

*Beri-beri.*—Thirty-four cases have been admitted to hospital, compared with 44 in 1910. The number of deaths in hospital under this disease was six, as against 18 in 1910. Par-boiled rice was given throughout the year except towards the middle of December when the supply temporarily failed. The adoption of par-boiled rice may



have been a factor in decreasing the mortality rate of the patients under treatment but it was noted that the disease was not so far advanced in those admitted as was seen in most of the cases in 1910.

*Venereal Diseases.*—Fourteen cases were admitted during the year.

*Pulmonary Tuberculosis.*—Eight cases were admitted to hospital during the year as against 11 in 1910, 23 deaths were attributed to this disease making a percentage of 12·56 of the total death-rate.

*Dysentery and Diarrhœa.*—Thirteen cases were admitted to hospital during the year as against 9 in 1910, 8 deaths were attributed to these diseases.

*Police Force.*—The general health of the Police throughout the year was satisfactory except for malaria. The number of cases of all diseases amongst the force admitted to hospital was 67 (the same number as last year) of which 38 were admitted for malaria. Three hundred and eighteen cases amongst the Police were treated as out-patients during the year as against 734 cases in 1910. Of the 318 cases treated as out-patients, 186 were suffering from malaria as against 251 in 1910. Three deaths occurred amongst the Police, one from Cerebro-spinal fever, one from malaria, and one man was murdered.

*Prisoners.*—The general health of the prisoners was excellent throughout the year. Only 62 were admitted to hospital, and but 60 were treated as out-patients as against 49 admitted to hospital, and 304 treated as out-patients, in 1910. The average daily number of prisoners was larger than in 1910. No prisoners died, but there were two deaths in hospital amongst the vagrants committed to the House of Detention.

*Out-patients.*—The total number treated during the year was 915. The number of Malays presenting themselves as out-patients for treatment is steadily increasing.

*Sanitation.*—An Inspector was appointed under the Sanitary Board at the beginning of the year, and the appearance and general condition of Victoria has considerably improved. The gardeners, who remove the night-soil for use as manure were forced to buy proper sanitary buckets supplied by the Public Works Department at cost price.

*Vaccination.*—The number of cases vaccinated was 229, as against 235 in 1910. Seventy-one were done by a private medical practitioner. Of the total number vaccinated 205 were successful, 14 were failures, and 10 were not seen. There were 43 vaccinations done on infants of 3 months and under, 106 on children of 4 months to one year and 80 on people of one year and over.

*Meteorological.*—The North-East Monsoon started about the end of January and lasted to the beginning of April; during this time the rainfall was so small as to occasion a shortage of water in the hospital well with total failure in March. The South-West Monsoon blew from the beginning of April to the middle of October, when the North-East Monsoon set in again, and blew to the end of the year. The total rainfall was only 99·82 inches, being the lowest on record for at least six years. In 1910 the total rainfall was 151·25 inches. The wettest month was October with 26·18 inches. The greatest rainfall in the 24 hours occurred on October 19th when 5·65 inches fell. The highest temperature recorded was 94° F. on January 18th and the lowest temperature was 71° F. which was recorded on three occasions during the year.

*The hospital.*—The total number of admissions was 276 including 7 Europeans and the total number treated in hospital, including 20 left over from the preceding year was 296 as against 338 in 1910, 307 in 1909 and 167 in 1908. Eleven remained over in hospital at the end of the year. Twenty operations were done on the in-patients, in addition to the opening of small abscesses, etc. There were 22 deaths in hospital giving a percentage of deaths to total treated of 7·43, as against 7·98 in 1910, 5·53 in 1909 and 13·17 in 1908. Seven deaths occurred within 24 hours of admission.

The chief diseases treated in hospital during the year were Malaria 122 with 4 deaths, Beri-beri 44 with 6 deaths, Pulmonary Tuberculosis 9 with 3 deaths, and Dysentery 11 with 3 deaths.

*Staff.*—There was no change amongst the staff.



## SINGAPORE.

*Return of the Statistics of Population for the Year 1911.*

—					Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1911	...				5,711	4,671	41,806	219,577	27,755	3,801	303,321
„ Births during the year 1911					125	153	1,652	4,178	438	34	6,580
„ Deaths „ 1911					75	135	1,936	12,128	1,123	102	15,499
„ Immigrants „ 1911					}		No data	avail able.			
„ Emigrants „ 1911											
Number of inhabitants in 1910	...				4,434	4,675	36,163	215,644	19,652	3,881	284,449
Increase ... ..	...	...	...	...	1,277	...	5,643	3,933	8,103	...	18,872
or Decrease ... ..	...	...	...	...	...	4	...	...	...	80	...

Race or Nationality should be specified, as nearly as possible, in accordance with the above model.

*Meteorological Return for the Year 1911.*

			TEMPERATURE.					RAINFALL.		WINDS.		REMARKS.	
			Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.		Average Force.
			°F	°F	°F	°F	°F	°F	Inches.	%			
January	...	...	142·7	69·6	85·1	72·2	12·9	78·3	11·57	88·0	N.E.	Not recorded.	
February	...	...	152·8	67·4	89·7	72·5	17·2	80·1	2·55	74·0	N.E.		
March	...	...	152·2	67·5	90·2	72·5	17·7	81·4	1·13	73·0	N.E.		
April	...	...	131·1	71·8	90·0	74·2	15·8	82·1	3·83	79·0	S.W.		
May	...	...	144·3	71·4	89·0	75·3	13·7	82·1	10·65	77·0	S.E.		
June	...	...	146·8	72·5	90·0	75·4	14·6	82·7	3·74	75·0	S.E.		
July	...	...	146·0	72·8	89·3	77·1	12·2	83·2	4·13	74·0	S.W.		
August	...	...	144·6	70·5	87·5	74·7	12·8	81·1	8·80	80·0	S.E.		
September	...	...	138·7	71·1	88·3	74·7	13·6	81·5	5·58	79·0	S.E.		
October	...	...	143·9	70·0	88·4	73·9	14·5	81·1	9·07	81·0	S.E.		
November	...	...	137·8	70·1	88·7	74·3	14·4	81·5	16·91	82·0	S.E.		
December	...	...	127·8	70·9	86·3	73·0	13·3	79·7	10·14	84·0	N.E.		
Mean	...	...	142·4	70·5	88·5	74·1	14·4	81·3	Total 88·10	79·0			

## SINGAPORE.

*Return of Diseases and Deaths in 1911 at the following Institutions:—  
General Hospital, Prison, St. John's Island, Tan Tock Seng's Hospital, Quarantine  
Camp, Leper, Beri-beri and Lock Hospitals and Lunatic Asylum.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Black Water Fever	...	4	1	4	...	
Beri-beri	153	828	103	981	138	
Cerebro spinal fever	...	4	3	4	...	
Chicken-pox	1	68	...	69	...	
Cholera	...	479	340	479	...	
Cow-pox	...	...	...	...	...	
Dengue	...	18	1	18	1	
Diphtheria	...	5	1	5	...	
Dysentery	43	1,206	567	1,249	37	
Endocarditis, infective	...	...	...	...	...	
Enteric Fever	10	160	94	170	10	
Erysipelas	...	8	...	8	1	
Gonorrhœa	11	211	...	222	14	
Febricula	...	487	3	487	11	
Leprosy	37	58	18	95	33	
Malaria	1	354	29	355	7	
Tertian	84	2,491	377	2,575	39	
Quartan	5	8	...	13	...	
Mixed	...	8	...	8	...	
Chronic	17	453	34	470	21	
Not differentiated	16	3,849	172	3,865	73	
Measles	...	35	...	35	...	
Mumps	...	26	...	26	1	
Osteo Myelitis	...	...	...	...	...	
Phagedœna	...	7	1	7	1	
Plague	...	21	15	21	1	
Pneumonia	8	265	124	273	8	
Pyæmia	...	16	13	16	1	
Pyrexia	10	145	1	155	2	
Rheumatism	6	199	...	205	4	
Septicæmia	1	16	15	17	...	
Small-pox	9	303	75	312	10	
Syphilis, Primary	24	341	...	365	29	
Secondary	74	656	31	730	51	
Tertiary	4	15	...	19	...	
Tetanus	...	14	9	14	1	
Tuberculosis	17	122	73	139	15	
Yaws	...	2	...	2	...	
Other Diseases	...	89	59	89	3	
INTOXICATIONS.						
Alcohol	...	43	3	43	...	
Mercury	...	...	...	...	...	
Morphinism	...	1	...	1	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRE- CEDING GROUPS.						
Anæmia	7	146	17	153	10	
" pernicious	...	...	...	...	...	
Diabetes	...	5	1	5	...	
Exophthalmic Goitre	...	...	...	...	...	
Chlorosis	...	1	...	1	...	
Dropsy	...	2	...	2	...	
Lymphadenoma	...	...	...	...	...	
Osteo Arthritis	...	...	...	...	...	
Old age	...	33	15	33	4	
Other Diseases	...	...	...	...	...	
Carried forward	538	13,202	2,195	13,740	526	

*Return of Diseases and Deaths in 1911 at the Singapore Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	538	13,202	2,195	13,740	526	
INFECTIVE DISEASES. —Continued.						
CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS.						
Foreign Bodies, Effects of ...	...	1	...	1	...	
New Growth ...	...	...	...	...	...	
Non-malignant ...	...	2	1	2	...	
Malignant ...	2	31	16	33	2	
Cyst ...	...	13	...	13	1	
Talips ...	...	1	...	1	...	
DISEASES OF THE NERVOUS SYSTEM.						
DISEASES OF THE NERVES.						
Neuritis ...	5	81	2	86	7	
Cerebral Hæmorrhage ...	...	17	13	17	1	
DISEASES OF THE SPINAL CORD AND MEMBRANES.						
Meningitis ...	...	21	21	21	...	
Myelitis ...	4	11	3	15	4	
Sclerosis ...	...	...	...	...	...	
Locomotor Ataxia ...	10	15	...	25	5	
DISEASES OF THE BRAIN AND MEMBRANES.						
Meningitis ...	...	28	22	28	1	
Hæmorrhage ...	...	3	3	3	...	
Abscess ...	1	2	1	3	...	
Hydrocephalus ...	1	2	1	3	...	
Other Diseases ...	...	...	...	...	...	
NERVOUS DISORDERS.						
Cerebral Softening ...	...	7	7	7	...	
Paraplegia ...	6	13	1	19	5	
Hemiplegia ...	8	50	3	58	11	
Neurasthenia ...	...	10	...	10	...	
Paralysis ...	...	5	1	5	...	
Epilepsy ...	8	18	2	26	9	
Headache ...	...	...	...	...	...	
Neuralgia ...	...	19	1	19	...	
Sclerosis ...	...	2	...	2	...	
Apoplexy ...	...	5	...	5	...	
Other Diseases ...	3	15	...	18	...	
MENTAL DISEASES.						
Idiocy ...	...	...	...	...	...	
Mania, Acute ...	50	164	38	214	107	
Recurrent ...	3	...	...	3	1	
Chronic ...	8	1	6	9	3	
Apolic ...	...	16	...	16	3	
Senile ...	1	...	...	1	1	
Melancholia, Acute ...	19	26	7	45	20	
Chronic ...	8	2	1	10	6	
Delusional Insanity ...	7	95	...	102	9	
General Paralysis of Insane... ..	...	2	2	2	...	
Dementia, Secondary ...	194	13	33	207	182	
Organic ...	5	...	...	5	5	
Primary ...	9	4	1	13	5	
Other Diseases ...	25	3	...	28	17	
<i>Carried forward ...</i>	915	13,900	2,381	14,815	931	



## Return of Diseases and Deaths in 1911 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	915	13,900	2,381	14,815	931	
<b>DISEASES OF THE EYE.</b>						
Conjunctivitis ...	8	56	...	64	3	
Purulent ...	2	42	...	44	3	
Granular ...	...	13	...	13	...	
Cornea Keratitis ...	3	3	...	6	...	
Ulcer ...	19	82	...	101	17	
Opacity ...	6	27	...	33	9	
Acquired deformities ...	...	...	...	...	...	
Iritis ...	7	35	...	42	4	
Glaucoma ...	...	1	...	1	...	
Optic Neuritis ...	...	4	...	4	1	
Cataract ...	1	18	...	19	8	
Panophthalmitis ...	2	11	...	13	3	
Stye ...	...	1	...	1	...	
Blepharitis ...	...	...	...	...	...	
Entropion ...	...	2	...	2	1	
Other Eye Diseases ...	24	132	...	156	31	
<b>DISEASES OF THE EAR.</b>						
Hæmatoma Auricle ...	...	...	...	...	...	
External Ear, Inflammation. ...	...	3	...	3	...	
Middle Ear       "       ...	...	3	...	3	1	
Cataract ...	...	4	...	4	...	
Other Diseases ...	...	1	...	1	...	
<b>DISEASES OF THE NOSE.</b>						
Epistaxis ...	...	1	...	1	...	
Naso-pharangeal Catarrh ...	...	4	...	4	...	
Coryza ...	...	2	...	2	...	
Other Diseases ...	1	2	...	3	...	
<b>DISEASES OF THE CIRCULATORY SYSTEM.</b>						
Pericarditis ...	...	13	11	13	...	
Endocarditis ...	5	10	5	15	...	
Valvular Disease ...	7	90	37	97	3	
Atheroma ...	...	2	...	2	...	
Dilatation of Heart ...	...	...	...	...	...	
Endarteritis ...	...	1	...	1	...	
Disordered Action of Heart ...	...	...	...	...	...	
Aneurysm ...	...	16	7	16	2	
Phlebitis ...	...	...	...	...	...	
Thrombosis ...	1	1	1	2	...	
Arterio-sclerosis ...	...	1	1	1	...	
Other Diseases ...	1	3	...	4	...	
<b>DISEASES OF THE RESPIRATORY SYSTEM.</b>						
Asthma ...	1	38	1	39	2	
Laryngitis ...	...	3	...	3	...	
Bronchitis ...	12	225	10	237	6	
Hæmoptysis ...	...	3	...	3	...	
Broncho-pneumonia ...	1	48	37	49	1	
Phthisis ...	21	424	244	445	15	
Pleurisy ...	2	43	2	45	2	
Empyema ...	2	35	29	37	...	
Pyopneumothorax ...	...	15	15	15	...	
Gangrene of Lung ...	...	21	9	21	2	
Other Diseases ...	...	10	6	10	...	
<i>Carried forward ...</i>	1,041	15,349	2,796	16,390	1,045	

## Return of Diseases and Deaths in 1911 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	1,041	15,349	2,796	16,390	1,045	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis ...	1	6	...	7	...	
Pyalephlebitis ...	...	1	1	1	...	
Cholecystitis ...	...	4	4	4	...	
Caries of Tooth ...	...	3	...	3	1	
Cholangitis ...	...	5	4	5	1	
Sorethroat ...	...	1	...	1	...	
Tonsillitis ...	...	12	...	12	...	
Pharyngitis ...	4	12	...	16	...	
Gastritis ...	...	71	2	71	3	
Ulceration, Stomach ...	...	13	9	13	1	
Dyspepsia ...	12	117	...	129	7	
Other Diseases of Stomach..	7	8	3	15	...	
Enteritis ...	...	150	23	150	3	
Appendicitis ...	1	29	2	30	...	
Colitis ...	...	39	4	39	...	
Ulcer Duodenum ...	...	2	2	2	...	
Gastric Dilatation ...	...	4	2	4	...	
Hernia ...	1	28	2	29	...	
„ Strangulated ...	...	1	...	1	...	
Obstruction, Intestines ...	...	3	2	3	...	
Diarrhœa ...	14	274	9	288	13	
Constipation ...	1	67	1	68	2	
Sprue ...	...	3	1	3	...	
Colic ...	...	12	...	12	...	
Ischio Rectal Abscess ...	1	5	...	6	...	
Fissure of Anus ...	...	7	1	7	...	
Fistula in Ano ...	4	46	...	50	...	
Piles ...	1	22	1	23	1	
Prolapse of Rectum ...	...	4	...	4	...	
Other Rectal Diseases ...	...	3	2	3	...	
Liver, Inflammation ...	...	...	...	...	...	
Abscess ...	...	30	14	30	2	
Cirrhosis ...	...	102	43	102	11	
Hepatitis ...	...	9	1	9	1	
Congestion ...	...	9	...	9	1	
Jaundice ...	...	4	1	4	...	
Gall Stones ...	...	...	...	...	...	
Peritoneum, Inflammation ...	...	54	47	54	1	
Ascites ...	...	1	...	1	...	
Other Diseases ...	13	28	5	41	1	
DISEASES OF THE LYMPHATIC SYSTEM.						
Bubo ...	...	224	2	224	16	
Spleen Inflammation ...	...	1	...	1	1	
Abscess ...	...	23	6	23	...	
Rupture ...	...	7	7	7	...	
Glands, Inflammation ...	5	14	...	19	...	
Suppuration ...	1	10	2	11	1	
Goitre ...	...	1	...	1	...	
Hæmorrhoids ...	...	15	1	15	2	
Other Diseases ...	1	14	1	15	2	
DISEASES OF THE URINARY SYSTEM.						
Bright's Disease ...	...	171	38	171	7	
Nephritis, Acute ...	1	27	11	28	1	
Chronic ...	...	10	7	10	...	
Pyelitis ...	...	3	...	3	...	
Renal Colic ...	...	...	...	...	...	
Cystitis ...	1	15	4	16	...	
Calculus ...	...	2	...	2	...	
Urine, Retention of ...	...	1	...	1	...	
Pyonephrosis ...	...	1	1	1	...	
Other Diseases ...	9	14	10	23	1	
<i>Carried forward ...</i>	1,119	17,091	3,072	18,210	1,125	

*Return of Diseases and Deaths in 1911 at the Singapore Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	1,119	17,091	3,072	18,210	1,125	
<b>DISEASES OF THE GENERATIVE SYSTEM.</b>						
(MALE ORGANS.)						
Abscess ...	...	2	...	2	...	
Stricture ...	I	26	...	27	I	
Urethral Fistula ...	...	3	...	3	...	
Extravasation of Urine ...	...	6	2	6	...	
Impacted Calculus ...	...	...	...	...	...	
Prostate Hypertrophy ...	...	...	...	...	...	
Phimosis ...	...	19	...	19	...	
Paraphimosis ...	...	3	...	3	...	
Ulcer of Penis ...	...	6	...	6	...	
Soft Chancre ...	4	96	...	100	10	
Scrotum, Abscess ...	...	4	...	4	...	
Sloughing ...	...	15	3	15	...	
Hæmatocele ...	I	2	...	3	...	
Balanitis ...	...	2	...	2	...	
Epididymitis ...	...	22	...	22	...	
Hydrocele ...	I	20	...	21	I	
Orchitis ...	...	22	I	22	...	
Abscess Testis ...	...	...	...	...	...	
Hernia ...	...	14	...	14	3	
Perineal Abscess ...	...	...	...	...	...	
Other Diseases ...	...	...	...	...	...	
(FEMALE ORGANS.)						
Metritis ...	...	I	...	I	I	
Endometritis ...	...	10	...	10	I	
Erosion of Cervix ...	...	2	...	2	...	
Prolapsus ...	...	I	...	I	...	
Salpingitis ...	...	7	...	7	...	
Vulva, Inflammation ...	...	...	...	...	...	
Abscess ...	...	...	...	...	...	
Ulcer ...	...	...	...	...	...	
Soft Chancre ...	...	...	...	...	...	
Fistula Vesico, Vaginal ...	I	...	...	I	I	
Pelvic Cellulitis ...	...	6	...	6	...	
Dysmenorrhœa ...	...	4	...	4	...	
Sapræmia ...	...	7	5	7	...	
Other Diseases ...	I	27	...	28	2	
<b>AFFECTIONS CONNECTED WITH PREGNANCY.</b>						
Abortion ...	...	4	...	4	...	
Pregnancy ...	6	233	5	239	7	
<b>DISEASES OF THE FEMALE BREAST.</b>						
Mastitis ...	...	...	...	...	...	
<b>DISEASES OF THE ORGANS OF LOCOMOTION.</b>						
Periostitis ...	2	12	...	14	...	
Caries ...	I	14	I	15	2	
Necrosis ...	2	21	I	23	3	
Arthritis ...	19	227	3	246	4	
Synovitis ...	I	37	2	38	4	
Ankylosis ...	...	I	...	I	...	
Curvature ...	...	I	...	I	...	
Caries of Spine ...	2	6	2	8	2	
Lumbago ...	...	4	...	4	2	
Other Diseases ...	4	6	3	10	I	
<i>Carried forward ...</i>	1,165	17,984	3,100	19,149	1,170	



## Return of Diseases and Deaths in 1911 at the Singapore Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	1,165	17,984	3,100	19,149	1,170	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	6	55	7	61	10	
Abscess ...	18	249	8	267	19	
Œdema ...	...	6	...	6	...	
Gangrene ...	...	10	9	10	...	
Elephantiasis ...	...	10	...	10	...	
Other Diseases ...	...	...	...	...	...	
DISEASES OF THE SKIN.						
Itch ...	...	102	...	102	5	
Urticaria ..	...	2	...	2	...	
Eczema ...	4	104	...	108	7	
Impetigo ...	...	19	...	19	...	
Boil ...	...	29	...	29	...	
Carbuncle ...	...	14	...	14	2	
Herpes ...	...	10	...	10	...	
Bedsore ...	...	...	...	...	...	
Pemphigus ...	...	1	...	1	...	
Psoriasis ...	...	4	...	4	...	
Dermatitis exfoliata ...	1	3	...	4	...	
Wart ...	...	2	...	2	...	
Corn ...	...	8	...	8	...	
Whitlow ...	...	2	...	2	...	
Ulcer ...	...	1,694	6	1,694	146	
Other Diseases ...	...	9	...	9	...	
INJURIES ...	...	1,558	59	1,558	70	
POISONS ...	...	28	7	28	...	
TUMOURS ...	...	21	7	21	1	
PARASITES ...	...	28	3	28	2	
Round Worm ...	...	...	...	...	...	
Tape-worm ...	...	...	...	...	...	
Ankylostoma Duodenale ...	7	61	30	68	3	
Filariasis ...	...	3	...	3	...	
Scabies ...	...	48	...	48	3	
Ringworm ...	1	2	...	3	...	
Dhoby Itch ...	...	...	...	...	...	
Others ...	...	13	7	13	...	
OBSERVATIONS ...	2	231	...	233	2	
NO DISCOVERABLE DISEASE ...	6	228	...	234	...	
TOTAL ...	1,210	22,538	3,243	23,748	1,440	

*List of Operations done at Singapore, during the  
year 1911.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
OPERATIONS ON TUMOURS AND CYSTS.						
Removal by Excision (Tu- mours) ...	...	9	...	9	...	
" " (Cysts) ...	...	6	...	6	...	
OPERATION FOR ABSCESSSES.						
By incision, drainage or as- piration ...	...	256	...	256	...	
OPERATION FOR ANEURISM.						
By ligature ...	...	4	...	4	...	
OPERATION FOR ARREST OF HÆMOR- RHAGE.						
By ligature ...	...	8	...	8	...	
OPERATION ON VEINS.						
Venesection ...	...	2	...	2	...	
OPERATION ON LYMPHATICS.						
Removal of Gland—by Ex- cision ...	...	88	...	88	...	
" " Curetting ...	...	19	...	19	...	
OPERATIONS ON SKIN AND SUBCUTAN- EOUS TISSUES.						
Skin Grafting (Thiersch) ...	...	8	...	8	...	
Evulsion of nail ...	...	2	...	2	...	
Removal of warts ...	...	1	...	1	...	
Curetting ulcers and sinu- ses ...	...	181	...	181	...	
Suturing wounds ...	...	43	...	43	...	
Incisions for Cellulitis ...	...	11	...	11	...	
Sinovitis—knee ...	...	1	...	1	...	
OPERATION ON BONES.						
Incision of periosteum ...	...	1	...	1	...	
Excision of bones ...	...	2	...	2	...	
Removal of Sequestra ...	...	12	...	12	...	
Fractures ...	...	5	...	5	...	
Others ...	...	6	...	6	...	
OPERATION ON JOINTS.						
Incision of joints ...	...	5	...	5	...	
Curettage ...	...	1	...	1	...	
Arthrectomy ...	...	2	...	2	...	
Aspiration of joints ...	...	2	...	2	...	
Breaking down adhesions ...	...	1	...	1	...	
Others ...	...	5	...	5	...	
Carried forward ...	...	681	...	681	...	

*List of Operations done at Singapore, during the  
year 1911.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward</i> ...	...	681	...	681	...	
OPERATION ON MUSCLE AND TENDON.						
Removal of bullet (Gunshot wound) ...	...	4	...	4	...	
Others ...	...	12	...	12	...	
AMPUTATIONS.						
Thigh ...	...	10	...	10	...	
Leg ...	...	19	...	19	...	
Foot ...	...	7	...	7	...	
Hand ...	...	3	...	3	...	
Toes ...	...	11	...	11	...	
Fingers ...	...	8	...	8	...	
OPERATION ON SKULL, BRAIN AND MEN- INGES.						
Trephining ...	...	2	...	2	...	
OPERATION ON THE SPINAL COLUMN.						
Lumbar puncture ...	...	1	...	1	...	
Laminectomy ...	...	1	...	1	...	
For Sacroiliac disease ...	...	1	...	1	...	
Others ...	...	1	...	1	...	
OPERATION ON EYE.						
Excision of Eye-ball ...	...	7	...	7	...	
Iridectomy ...	...	1	...	1	...	
For Entropion ...	...	2	...	2	...	
For Symblepharon (plastic) For Cataract (Extraction of Lens) ...	...	1	...	1	...	
Others ...	...	4	...	4	...	
DENTAL OPERATIONS.						
Extraction of teeth ...	...	24	...	24	...	
OPERATIONS ON NOSE AND ACCESSORY SINUSES.						
For Antral Empyema ...	...	1	...	1	...	
For Nasal Polypus ...	...	1	...	1	...	
Others ...	...	1	...	1	...	
OPERATIONS ON LARYNX AND TRACHEA.						
Laryngotomy ...	...	2	...	2	...	
<i>Carried forward</i> ...	...	809	...	809	...	



*List of Operations done at Singapore, during the  
year 1911.—Concluded.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward</i> ...	...	809	...	809	...	
OPERATIONS ON THROAT.						
Paracentesis of Pleura ...	...	7	...	7	...	
Thoracotomy with Excision of ribs ...	...	18	...	18	...	
Others ...	...	5	...	5	...	
OPERATIONS ON ABDOMEN.						
Laparotomy Exploratory ...	...	7	...	7	...	
Appendicostomy ...	...	1	...	1	...	
Opening and drainage of Appendicular Abscess ...	...	6	...	6	...	
For Strangulated Hernia ...	...	2	...	2	...	
For Radical Cure, Inguinal Hernia ...	...	10	...	10	...	
Suture of ruptured intestine ...	...	1	...	1	...	
For Liver Abscess ...	...	19	...	19	...	
Cholecystotomy ...	...	2	...	2	...	
Splenectomy ...	...	5	...	5	...	
Others ...	...	14	...	14	...	
OPERATIONS ON RECTUM AND ANUS.						
For Anal Fistula ...	...	11	...	11	...	
For Hæmorrhoids ...	...	14	...	14	...	
Dilatation of Rectal Stricture ...	...	1	...	1	...	
Reduction of prolapsed Anus ...	...	2	...	2	...	
Others ...	...	16	...	16	...	
OPERATIONS ON BLADDER AND URETHRA.						
Suprapubic Cystotomy ...	...	3	...	3	...	
External Urethrotomy ...	...	3	...	3	...	
For Urethral Calculus (by in- cision) ...	...	1	...	1	...	
Dilation of Urethral Stric- ture ...	...	19	...	19	...	
Incision and drainage of Prostatic Abscess ...	...	2	...	2	...	
Others ...	...	3	...	3	...	
OPERATIONS ON MALE GENITALIA.						
Amputation of Penis ...	...	3	...	3	...	
Circumcision ...	...	81	...	81	...	
For Paraphimosis ...	...	1	...	1	...	
For Hydrocele (Radical cure) ...	...	15	...	15	...	
For Hydrocele (Tapping) ...	...	3	...	3	...	
For Hernia Testis ...	...	5	...	5	...	
Castration ...	...	2	...	2	...	
Others ...	...	5	...	5	...	
OPERATIONS ON FEMALE GENITALS.						
Vaginal Fistula stitched ...	...	1	...	1	...	
Vaginal Curetting ...	...	1	...	1	...	
Others ...	...	1	...	1	...	
Total ...	...	1,099	...	1,099	...	

## LABUAN.

*Return of the Statistics of Population for the Year 1911.*

				Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1910 ...				Records	not reliable.		...	...	...	8,199
„	Births during the year	1911		2	2	138	41	3	3	189
„	Deaths	„ „ 1911		0	1	117	52	10	2	183
„	Immigrants	„ „ 1911	} Not obtainable.							
„	Emigrants	„ „ 1911								
Number of inhabitants in 1911 ...				According to Census 1911.				...	...	6,545
Increase	...	...	...	2	1	21	0	0	1	...
or Decrease	...	...	...	0	0	0	11	7	0	1,654

Race or Nationality should be specified, as nearly as possible, in accordance with the above model.

*Meteorological Return for the Year 1911.*

				TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
				Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
				°F	°F	°F	°F	°F	°F	Ins.	%			
January	...	...	...	151	72'32	86'32	74'80	11'51	80'56	5'24	71'77	S.W.		The year has been a very dry one, with shortage of water at the beginning and end of the year.
February	...	...	...	148	72'40	85'35	74'96	10'75	79'98	2'39	70'92	N.E.		
March	...	...	...	150	No instrument for recording.	87'41	75'16	12'25	81'29	0'69	66'45	N.E.		
April	...	...	...	150		88'26	75'93	12'33	82'10	9'44	66'10	N.E.		
May	...	...	...	146		88'32	75'96	12'35	82'12	11'47	66'90	S.W.		
June	...	...	...	144		88'83	76'43	12'40	82'63	7'00	66'36	S.W.		
July	...	...	...	142		88'41	76'54	11'87	82'45	11'25	67'35	S.W.		
August	...	...	...	144		87'90	75'83	11'67	81'20	8'37	66'90	S.W.		
September	...	...	...	145		87'10	75'80	11'30	81'10	9'15	65'73	S.W.		
October	...	...	...	146		86'70	75'19	11'51	80'95	26'18	68'80	N.W.		
November	...	...	...	150		88'03	76'30	11'76	82'11	4'57	68'86	N.E.		
December	...	...	...	147		87'12	76'29	10'83	81'72	4'07	68'54	N.E.		
Mean	...	...	...	146		87'47	75'76	11'71	81'51	8.32	67'89	...	...	

## LABUAN.

*Return of Diseases and Deaths in 1911 at the Labuan Hospital.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	10	34	6	44	3	
Cerebro-Spinal fever ...	...	1	1	1	...	
Dysentery ...	...	11	3	11	...	
Gonorrhœa ...	...	1	...	1	...	
Malaria, Tertian ...	2	81	...	83	...	
"  Quartan ...	...	1	...	1	...	
"  Sub-tertian ...	1	31	3	32	...	
"  Cachexia ...	1	5	1	6	...	
Pyrexia ...	...	1	...	1	...	
Septicæmia ...	...	1	1	1	...	
Small-pox ...	...	2	...	2	...	
Syphilis, Primary ...	...	1	...	1	...	
"  Secondary ...	...	5	...	5	...	
"  Tertiary ...	...	1	...	1	...	
Yaws ...	...	3	...	3	1	
GENERAL DISEASES NOT INCLUDED IN THE PREVIOUS GROUP:—						
Anæmia ...	...	1	...	1	...	
Debility (General) ...	...	5	2	5	...	
"  (after Malaria) ...	...	1	...	1	...	
DISEASES OF THE NERVOUS SYSTEM.						
DISEASES OF THE NERVES.						
Neuritis ...	...	4	...	4	2	
NERVOUS DISORDERS.						
Epileptic Fits ...	...	1	...	1	...	
MENTAL DISORDERS.						
Idiocy ...	...	1	...	1	...	
Mania (Recurrent) ...	...	1	...	1	...	
DISEASES OF THE EYE.						
Corneal ulcer ...	...	1	...	1	...	
Iritis ...	...	1	...	1	...	
Trichiasis and Pannus ...	...	1	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM.						
Valvular Disease of Heart...	...	2	1	2	...	
DISEASES OF THE RESPIRATORY SYSTEM.						
Bronchitis ...	...	2	...	2	...	
Bronchiectasis ...	...	1	...	1	...	
Phthisis ...	1	8	3	9	1	
Pleurisy ...	...	1	...	1	...	
Carried forward ...	15	210	21	225	7	



*Return of Diseases and Deaths in 1911 at the Labuan Hospital—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	15	210	21	225	7	
DISEASES OF THE DIGESTIVE SYSTEM.						
Diarrhoea ...	...	2	...	2	1	
Enteritis ...	...	1	...	1	...	
Fistula in Ano ...	...	1	...	1	...	
Gastritis ...	...	5	...	5	...	
Granular Pharyngitis ...	...	1	...	1	...	
Hæmorrhoids ...	...	1	...	1	...	
Liver Abscess ...	...	1	...	1	...	
Mucous Colitis ...	...	6	...	6	...	
Stomatitis ...	...	1	...	1	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Adenitis (Femoral) ...	...	1	...	1	...	
Glands, Suppuration of ...	...	1	...	1	...	
DISEASES OF THE GENERATIVE SYSTEM.						
Epididymitis Gonorrhœal ...	...	1	...	1	...	
Phagædenic sore ...	...	4	...	4	...	
Undescended testicle ...	...	1	...	1	...	
Soft Chancre ...	...	1	...	1	...	
DISEASES OF THE ORGANS OF LOCOMOTION.						
Arthritis, Gonorrhœal ...	...	1	...	1	1	
Rheumatism ...	...	1	...	1	...	
Tubercular Caries Sacro Iliac Joint ...	...	1	1	1	...	
Tubercular Caries Tarsus ...	...	1	...	1	...	
DISEASES OF CONNECTIVE TISSUE.						
Abscess ...	...	4	...	4	...	
Cellulitis ...	1	2	...	3	...	
Elephantiasis ...	...	1	...	1	...	
DISEASES OF THE SKIN.						
Acute Eczema ...	...	2	...	2	...	
Septic Ulcers ...	1	4	...	5	...	
INJURIES ...	3	14	...	17	2	
PARASITES.						
Round worm ...	...	1	...	1	...	
OBSERVATIONS FOR MENTAL DISORDERS.	...	1	...	1	...	
NO DISCOVERABLE DISEASES ...	...	2	...	2	...	
MALINGERING ...	...	3	...	3	...	
Total ...	20	276	22	296	11	

*List of Operations done at the Civil Hospital, Labuan, during the  
year 1911.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
OPERATIONS.						
Removal of traumatic se- questra internal condyle of Femur, drainage knee joint, Partial amputation foot ...	...	I	...	I	...	
Incision and drainage abscess (Gland) ...	...	I	...	I	...	
Incision and drainage abscess (Caries of Spine) ...	...	I	...	I	...	
Plastic Operation. Remov- ing Keloid ...	...	I	...	I	...	
Excision of testicle, (impro- perly descended, undevel- oped) ...	...	I	...	I	...	
Incision and drainage large abscess thigh and buttock	...	I	...	I	...	
ncision and drainage Liver (Tropical abscess) ...	...	I	...	I	...	
Circumcision, etc. ...	...	I	...	I	...	
Incision and drainage abscess (Arm) ...	...	I	...	I	...	
Incision and drainage abscess (Arm) ...	...	I	...	I	...	
Incision and drainage abscess (Inguinal) ...	...	I	...	I	...	
Scraping and Removal of bone (Tubercular Caries Tarsus) ...	...	I	...	I	...	
Incision and drainage abscess (Bursal abscess knee joint)	...	I	...	I	...	
Multiple incisions into leg (Cellulitis) ...	...	I	...	I	...	
Incision and drainage abscess (Thigh) ...	...	I	...	I	...	
Incision and drainage abscess (Buttock) ...	...	I	...	I	...	
Arlt's Plastic operation (Tri- chiasis and Pannus) ...	...	I	...	I	...	
Circumcision, etc. ...	...	I	...	I	...	
Thiersch's Skin Graft ...	...	I	...	I	...	
Ligature operation Int. Hæmorrhoids ...	...	I	...	I	...	
Total ...	...	20	...	20	...	

					Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	Nation Unknown.	TOTAL.
Number of inhabitants in 1911					{ 1,004	1,557	35,869	78,465	23,346	1,652	...	141,893 P.
					{ 16	5	4,626	1,648	1,263	20	...	7,578 D.
" Births during the year 1911					{ 21	30	1,159	1,627	451	82	1	3,371 P.
					{ ...	...	146	28	23	1	...	198 D.
" Deaths " " 1911					{ 16	30	879	3,020	1,829	100	9	5,883 P.
					{ ...	1	136	142	90	...	...	369 D.
" Immigrants " 1911					{ ...	...	...	81,624	108,471	...	...	
" Emigrants " 1911					{ ...	...	...	...	48,103	...	...	
Number of inhabitants in 1910					{ 906	1,857	32,955	78,767	17,735	2,123	...	134,343 P.
					{ ...	...	...	...	...	...	...	4,634 D.
Increase ... ..					{ 98	...	2,914	...	5,611	...	...	8,623 P.
or ... ..					{ ...	...	...	...	...	...	...	2,944 D.
Decrease ... ..					{ ...	300	...	302	...	471	...	1,073 P.

*Meteorological Return for the Year 1911.*

[illegible]



## PENANG.

*Return of Diseases and Deaths in 1911 at the following Institutions:—General, District, Lock, Prison, Quarantine Camp, Jelutong, Balik Pulau, Leper Hospital, Pulau Jerejak, Lumut, Female Leper Ward, Jelutong, and Female Ward, District Hospital and New Quarantine Station, Pulau Jerejak.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	36	134	40	170	19	
Chicken-pox ...	10	65	...	75	1	
Cholera ...	...	270	204	270	...	
Dysentery ...	5	421	174	426	14	
Enteric Fever ...	1	6	2	7	1	
Erysipelas ...	...	3	1	3	...	
Gonorrhœa ...	4	94	...	98	4	
"    Ophthalmia ...	2	32	...	34	5	
"    Arthritis ...	...	18	...	18	2	
Warts ...	...	2	...	2	...	
Leprosy ...	403	221	* 159	624	438	
Malaria ...	5	634	59	639	13	
"    Benign Tertian ...	8	335	...	343	15	
"    Malignant Tertian ...	7	192	47	199	6	
"    Cachexia ...	15	254	25	269	23	
Measles ...	...	31	...	31	...	
Mumps ...	...	13	...	13	...	
Phagedœna ...	3	17	15	20	1	
Pneumonia ...	1	37	24	38	...	
Pyrexia ...	12	135	† 1	147	3	
Rheumatism ...	19	189	1	208	30	
Septicæmia ...	...	3	3	3	...	
Small-pox ...	51	124	21	175	43	
Primary Syphilis ...	3	55	...	58	1	
Secondary " ...	44	384	6	428	43	
Tertiary " ...	2	25	3	27	3	
Tetanus ...	...	5	4	5	...	
Tuberculosis ...	1	5	3	6	...	
INTOXICATION.						
Alcoholism ...	1	29	...	30	2	
Morphia Habit ...	...	9	...	9	...	
Opium " ...	...	7	...	7	...	
DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	10	649	87	659	17	
Diabetes Mellitus ...	...	1	...	1	...	
Exophthalmic Goitre ...	...	1	...	1	...	
Rheumatoid Arthritis ...	...	1	...	1	1	
Debility ...	...	250	1	250	1	
Old age ...	...	29	5	29	...	
Marasmus ...	...	13	8	13	...	
CERTAIN MORBID CONDI- TIONS INCIDENT TO VARIOUS PARTS.						
New-growths, Malignant ...	1	13	4	14	3	
"    Non-Malignant ...	...	10	...	10	...	
DISEASES OF THE NERVOUS SYSTEM.						
Neuritis ...	5	18	...	23	7	
Peripheral Neuritis ...	...	1	1	1	...	
Infantile Paresis ...	...	2	...	2	1	
Embolism ...	1	...	...	1	...	
Locomotor Ataxia ...	...	3	...	3	1	
Carried forward ...	650	4,740	898	5,390	698	

\* 1 died Asphyxia.

† Mal. Cachexia.

## Return of Diseases and Deaths in 1911 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	650	4,740	898	5,390	698	
DISEASES OF THE NERVOUS SYSTEM.— <i>Continued.</i>						
Disseminated Sclerosis ...	...	1	...	1	...	
Lateral Sclerosis ...	1	...	...	1	1	
Meningitis ...	...	1	1	1	...	
Cerebral Hæmorrhage ...	...	4	3	4	...	
Thrombosis Sup. Long. Sinus ...	...	1	1	1	...	
Sclerosis ...	...	1	...	1	...	
Paraplegia ...	...	1	1	1	...	
Hemiplegia ...	7	33	10	40	5	
Monoplegia ...	...	1	...	1	...	
Convulsions ...	...	9	9	9	...	
Epilepsy ...	...	12	1	12	1	
Epileptic Vertigo ...	...	2	2	2	...	
Headache ...	...	2	...	2	1	
Neuralgia ...	...	8	...	8	...	
Hysteria ...	...	3	...	3	...	
Mania ...	...	5	4	5	...	
Delusional Insanity ...	...	6	...	6	...	
Dementia ...	3	4	1	7	2	
DISEASES OF THE EYE.						
Conjunctivitis ...	2	54	...	56	2	
Trachoma ...	6	11	...	17	2	
Keratitis ...	...	8	...	8	...	
Ulcer Cornea ...	3	35	...	38	1	
Opacity Cornea ...	...	11	...	11	1	
Staphyloma ...	1	1	...	2	...	
Scleritis ...	1	...	...	1	...	
Iritis ...	3	20	...	23	1	
Glaucoma ...	...	1	...	1	...	
Iridocyclitis ...	...	6	...	6	2	
Choroiditis ...	...	1	...	1	...	
Optic Atrophy ...	1	2	...	3	...	
Anæmic Retina ...	...	4	...	4	...	
Cataract ...	4	11	...	15	2	
Pterygium ...	...	1	...	1	...	
Panophthalmitis ...	...	4	...	4	1	
Amaurosis ...	...	17	...	17	7	
Amblyopia ...	5	...	...	5	...	
Hordeolus ...	...	2	...	2	...	
Ectropion ...	...	1	...	1	1	
DISEASES OF THE EAR.						
Otorrhœa ...	...	9	...	9	...	
Mastoid Abscess ...	...	1	...	1	...	
Otitis Media ...	...	1	...	1	...	
DISEASES OF THE NOSE.						
Ozæna ...	...	3	...	3	...	
Epistaxis ...	...	3	...	3	1	
Nasal Catarrh ...	...	1	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM.						
Pericarditis ...	...	2	1	2	...	
Val. Disease Heart Mitral ...	...	77	26	77	...	
"    Aortic ...	1	5	4	6	1	
"    Atheroma ...	...	1	1	1	...	
<i>Carried forward...</i>	688	5,127	963	5,815	730	

*Return of Diseases and Deaths in 1911 at the Penang Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	688	5,127	963	5,815	730	
<b>DISEASES OF THE CIRCULATORY SYSTEM.</b> —Continued.						
Heart failure ...	...	2	1	2	...	
Dilatation Heart ...	...	14	...	14	1	
Syncope ...	...	1	...	1	...	
Tachycardia ...	...	4	...	4	...	
Irregular Heart ...	...	1	...	1	...	
Arteris Sclerosis ...	...	1	...	1	...	
Cerebral Thrombosis ...	...	1	...	1	1	
Aneurysm ...	...	2	...	2	...	
Varicose Veins ...	...	1	...	1	...	
<b>DISEASES OF THE RESPIRATORY SYSTEM.</b>						
Asthma ...	...	21	*1	21	...	
Bronchitis ...	12	196	9	208	8	
Bronchiectasis ...	1	...	...	1	...	
Hæmoptysis ...	...	1	...	1	...	
Broncho Pneumonia ...	1	3	1	4	...	
Gangrene Lung ...	...	1	1	1	...	
Fibroid Phthisis ...	...	1	...	1	1	
Phthisis ...	27	193	123	220	16	
Pleurisy ...	1	13	1	14	1	
Empyema ...	...	1	1	1	...	
<b>DISEASES OF THE DIGESTIVE SYSTEM.</b>						
Stomatitis ...	...	7	...	7	...	
Ulceration Mouth ...	...	2	...	2	...	
Cancrum Oris ...	...	3	2	3	...	
Inflammation jaw ...	...	1	...	1	...	
Alveolar Abscess ...	...	3	...	3	...	
Dental Ulcer ...	...	1	...	1	...	
Caries Tooth ...	...	2	...	2	...	
Caries Alveolar ...	...	1	...	1	...	
Necrosis Lower jaw ...	...	1	...	1	1	
Sore-throat ...	...	2	...	2	...	
Tonsillitis ...	...	8	...	8	1	
Pharyngitis ...	1	15	1	16	...	
Gastritis ...	...	9	...	9	...	
Gastric Ulcer ...	...	1	1	1	...	
Dyspepsia ...	1	131	...	132	5	
Enteritis ...	...	3	3	3	...	
Appendicitis ...	...	3	...	3	...	
Colitis ...	...	1	...	1	...	
Sprue ...	...	2	1	2	...	
Hernia, Irreducible ...	1	14	...	15	...	
" Inguinal ...	...	9	...	9	...	
" Ventral ...	...	1	...	1	...	
" Umbilical ...	...	2	1	2	...	
Volvulus ...	...	1	1	1	...	
Intestinal Obstruction ...	...	2	2	2	...	
Diarrhœa ...	22	455	150	477	15	
Constipation ...	...	52	...	52	...	
Colic ...	...	96	...	96	...	
Ischio Rectal Abscess ...	...	1	...	1	...	
Ulcer Anus ...	...	1	...	1	...	
Fistula in Ano ...	1	7	...	8	...	
Hæmorrhoids ...	...	16	...	16	...	
Prolapse Rectum ...	...	4	...	4	...	
Hepatitis ...	...	1	...	1	...	
Hepatic Abscess ...	...	5	3	5	...	
Cirrhosis Liver ...	1	18	6	19	4	
Jaundice ...	...	3	...	3	...	
Chronic Cholecystitis ...	...	1	1	1	...	
<i>Carried forward ...</i>	757	6,469	1,273	7,226	784	

\* Chronic Bronchitis.



## Return of Diseases and Deaths in 1911 at the Penang Hospitals.—Continued.

DISEASES,	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	757	6,469	1,273	7,226	784	
DISEASES OF THE DIGESTIVE SYSTEM.— <i>Continued.</i>						
Biliary Colic ...	...	1	...	1	...	
Peritonitis ...	...	2	1	2	...	
Peritoneal Adhesions ...	...	1	...	1	...	
Ascites ...	...	4	...	4	2	
DISEASES OF THE LYMPHATIC SYSTEM.						
Enlarged Spleen ...	...	61	...	61	...	
Bubo ...	15	96	...	111	3	
Inflammation, Gland ...	...	6	...	6	1	
Suppuration „ ...	1	...	...	1	...	
DISEASES OF THE THYROID GLAND.						
Goitre ...	...	1	1	1	...	
DISEASES OF THE URINARY SYSTEM.						
Nephritis ...	...	13	6	13	...	
Bright's Disease ...	1	10	4	11	...	
Chronic Bright's Disease ...	...	109	34	109	10	
Pyonephrosis ...	...	1	1	1	...	
Renal Colic ...	...	1	...	1	...	
Cystitis ...	2	4	1	6	...	
Retention of Urine ...	...	11	1	11	...	
Incontinence of Urine ...	...	1	...	1	...	
Albuminuria ...	1	...	...	1	...	
Stricture Urethra ...	...	8	*2	8	1	
Urethral Fistula ...	...	3	...	3	...	
DISEASES OF THE GENERATIVE SYSTEM.						
(MALE ORGANS.)						
Gleet ...	...	7	...	7	...	
Phimosis ...	3	20	...	23	...	
Paraphimosis ...	...	6	...	6	...	
Balanitis ...	...	2	...	2	...	
Abscess Penis ...	...	2	...	2	...	
Soft Chancre ...	4	149	...	153	12	
Ulcer Penis ...	7	42	...	49	2	
Condyloma Penis ...	...	1	...	1	...	
Inflammation Scrotum ...	1	...	...	1	...	
Abscess Scrotum ...	...	6	...	6	...	
Ulcer Scrotum ...	...	7	...	7	...	
Pruritus Scrotum ...	...	4	...	4	1	
Varicocele ...	...	1	...	1	...	
Hydrocele ...	1	20	...	21	...	
Orchitis ...	...	19	...	19	...	
Epididymitis ...	...	2	...	2	...	
Hernia Testis ...	...	7	...	7	...	
Abscess Perineum ...	...	2	...	2	...	
(FEMALE ORGANS.)						
Metritis ...	...	6	...	6	2	
Endometritis ...	...	1	...	1	...	
Prolapse Uterus ...	...	1	...	1	...	
Vaginitis ...	...	1	...	1	...	
Ulcer Vulva ...	...	9	...	9	1	
„ Vagina ...	...	34	...	34	...	
„ Labia ...	3	4	...	7	...	
<i>Carried forward ...</i>	796	7,155	1,324	5,951	819	

\* Diarrhoea.

## Return of Diseases and Deaths in 1911 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	796	7,155	1,324	5,951	819	
DISEASES OF THE GENERATIVE SYSTEM. —Continued.						
(FEMALE ORGANS.)—Contd.						
Oedema, Labia ...	...	1	...	1	...	
Granular Erosion of Cervix ...	...	24	...	24	6	
Menorrhagia ...	...	1	...	1	...	
Meteorrhagia ...	...	1	...	1	...	
Leucorrhœa ...	...	89	...	89	1	
AFFECTIONS CONNECTED WITH PARTURITION.						
Abortion ...	...	2	...	2	..	
Missed Labour ...	...	1	...	1	...	
Pregnancy ...	1	10	..	11	...	
Natural Labour ...	...	3	...	3	...	
AFFECTIONS CONSEQUENT ON PARTURITION.						
Retention of Placenta ...	...	1	...	1	...	
Sloughing Vagina ...	...	1	...	1	...	
DISEASES OF THE FEMALE BREAST.						
Sub. Mammary Abscess ...	...	1	...	1	...	
DISEASES OF THE ORGANS OF LOCOMO- TION.						
Periostitis ...	1	4	...	5	...	
Caries (bone) ...	2	4	...	6	1	
Necrosis ...	2	7	...	9	6	
Arthritis ...	...	10	2	10	1	
Synovitis ...	5	36	...	41	2	
Tubercular disease, Hip joint ...	...	1	...	1	...	
Genu Valgum ...	...	2	...	2	...	
Caries Spine ...	1	...	...	1	1	
Curvature Spine ...	...	2	...	2	...	
Ankylosis ...	...	5	...	5	1	
Dislocation Spine ...	1	...	...	1	...	
Myalgia ...	...	2	...	2	1	
Lumbago ...	...	3	...	3	1	
Tenosynovitis ...	...	2	...	2	...	
Bursitis ...	...	2	...	2	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	1	28	1	29	...	
Abscess ...	19	145	3	164	5	
Sinus ...	1	12	...	13	...	
Elephantiasis ...	1	7	...	8	...	
DISEASES OF THE SKIN.						
Urticaria ...	...	1	...	1	...	
Eczema ...	1	35	...	36	3	
Impetigo ...	1	7	...	8	...	
Boils ...	1	16	...	17	...	
Carbuncle ...	...	2	...	2	...	
<i>Carried forward ...</i>	834	7,623	1,330	8,457	851	

## Return of Diseases and Deaths in 1911 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	834	7,623	1,330	8,457	851	
<b>DISEASES OF THE SKIN.</b>						
<i>—Continued.</i>						
Frost-bite ...	...	1	...	1	...	
Herpes ...	...	3	...	3	...	
Psoriasis ...	...	2	...	2	...	
Ulcers ...	54	1,019	*4	1,073	115	
Ichthyosis ...	...	1	...	1	...	
Pustular Dermatitis ...	1	8	...	9	...	
Corn ...	...	1	...	1	...	
Onychia ...	...	1	...	1	...	
Whitlow ...	...	6	...	6	...	
<b>INJURIES.</b>						
General Injuries ...	2	62	7	64	3	
Local „ ...	14	422	†7	436	19	
<b>POISONS.</b>						
Arsenical Poisoning ...	...	1	1	1	...	
Dog bite ...	...	1	...	1	...	
Snake bite ...	...	1	...	1	...	
<b>PARASITES.</b>						
Guinea Worm ...	1	3	...	4	...	
Scabies ...	3	125	...	128	3	
Helminthiasis ...	...	4	...	4	1	
Ringworm ...	2	23	...	25	...	
Ankylostomiasis ...	1	27	6	28	1	
Round and Thread worms ...	...	2	...	2	...	
Malingering ...	...	30	...	30	1	
Observation ...	5	304	11	309	6	
No Appreciable Disease ...	2	99	...	101	3	
<b>OPERATIONS.</b>						
Circumcision ...	...	3	...	3	...	
Abscess Thigh ...	...	1	...	1	...	
Adenoids ...	...	1	...	1	...	
GRAND TOTAL ...	919	9,774	1,366	10,693	1,003	
<b>OPERATIONS.</b>						
<b>EXCISION OF TUMORS.</b>						
Non-malignant ...	...	3	...	3	...	
Malignant ...	...	3	...	3	...	
<b>ON THE SKIN AND SUB- CUTANEOUS TISSUES.</b>						
Incision of Abscesses ...	...	44	...	44	...	
Incision for Cellulitis ...	...	9	...	9	...	
Curettling of Sinuses ...	...	3	...	3	...	
Curettling of Ulcers ...	...	2	...	2	...	
Incision for Suppurating Glands ...	...	17	...	17	...	
Excision of Lymphatic Glands ...	...	8	...	8	...	
Wound of Throat ...	...	1	...	1	...	
Lacerated wound of Hand ...	...	1	...	1	...	
<i>Carried forward ...</i>	...	91	...	91	...	

\* 2 died Diarrhœa.

† 1 died Septicæmia.



*Operations in 1911 at the Penang Hospitals.—Concluded.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	...	91	...	91	...	
OPERATIONS.— <i>Concluded.</i>						
ON THE EYE AND EAR.						
Excision of Eye-ball ...	...	1	...	1	...	
Schwartz operation for dis- ease of Ear ...	...	1	...	1	...	
ON ARTERIES.						
Ligature of Femorary Artery for Popliteal Aneurism ...	...	1	...	1	...	
ON NERVES.						
Nerve-stretching ...	...	1	...	1	...	
Neurorrhaphy ...	...	1	...	1	...	
ON MUSCLES.						
Myotomy ...	...	1	...	1	...	
ON ABDOMEN.						
Laparotomy for Abdominal Abscess ...	...	1	...	1	...	
Laparotomy for Wounds ...	...	2	...	2	...	
Perityphlitic Abscess ...	...	1	...	1	...	
Radical cure for Inguinal Hernia ...	...	4	...	4	...	
Radical cure for Umbilical Hernia ...	...	3	...	3	...	
Liver Abscess ...	...	4	...	4	...	
Subphrenic Abscess ...	...	1	...	1	...	
Hepatitis ...	...	1	...	1	...	
ON RECTUM AND ANUS.						
Hæmorrhoids ...	...	7	...	7	...	
Fistula in Ano ...	...	6	...	6	...	
ON THE MALE GENERATIVE ORGANS.						
Circumcision ...	...	25	...	25	...	
Hydrocele ...	...	3	...	3	...	
Varicocele ...	...	1	...	1	...	
Stricture of Urethra ...	...	1	...	1	...	
Urethral Fistula ...	...	1	...	1	...	
Hernia Testis ...	...	4	...	4	...	
ON THE FEMALE GENERA- TIVE ORGANS.						
Curetting of Uterus ...	...	5	...	5	...	
Urethral Abscess ...	...	1	...	1	...	
Curetting of Ulcer of Vagina ...	...	1	...	1	...	
Removal of Elephantiasis Vulva ...	...	1	...	1	...	
Evacuation of Uterus for Re- tention of Membranes ...	...	1	...	1	...	
ON BONES AND JOINTS.						
Amputations ...	...	11	...	11	...	
Removal of Sequestra ...	...	7	...	7	...	
Excision of Joints ...	...	2	...	2	...	
Incision into joints with drainage ...	...	2	...	2	...	
Removal of Bursa Patellæ ...	...	1	...	1	...	
Reduction of dislocation of Lower Jaw ...	...	1	...	1	...	
ON THORAX.						
Thoracotomy ...	...	1	...	1	...	
Total ...	...	196	...	196	...	

## PROVINCE WELLESLEY.

*Return of the Statistics of Population for the Year 1911.*

—					Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	Unknown.	TOTAL.
Number of inhabitants in 1911	...				244	208	74,164	31,981	22,207	536	...	129,340
„ Births during the year 1911					6	8	2,575	657	521	22	...	3,789
„ Deaths „ „ 1911					...	1	1,895	1,025	997	55	6	3,979
„ Immigrants „ 1911					}	No data available.						
„ Emigrants „ 1911												
Number of Inhabitants in 1910	...				267	335	69,109	29,542	22,227	1,809	...	123,289
Increase ... ..	...	...	...	...	...	...	5,055	2,439	...	...	...	7,494
Decrease ... ..	...	...	...	...	23	127	...	...	20	1,273	...	1,443

Race or Nationality should be specified, as nearly as possible, in accordance with the above model.

*Meteorological Return for the Year 1911.*

—				TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
				Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
				°F	°F	°F	°F	°F	°F	Inches.	o/o			
January	...	...	...	151'0	66'7	90'4	70'8	19'6	80'6	5'00	77'0	N.W.	4	
February	...	...	...	152'0	67'8	92'2	68'5	23'7	80'3	3'40	72'0	N.W.	4	
March	...	...	...	152'0	70'2	93'1	72'5	20'6	82'7	3'35	74'0	N.W.	6	
April	...	...	...	151'7	70'3	92'0	72'8	19'2	82'4	13'95	79'0	S.W.	8	
May	...	...	...	150'8	70'7	91'4	73'0	18'4	82'2	6'00	78'0	N.W.	4	
June	...	...	...	148'4	70'6	91'9	73'3	18'6	82'6	5'30	72'0	N.W.	6	
July	...	...	...	146'8	71'4	93'2	73'4	19'8	83'3	3'75	73'0	S.W.	8	
August	...	...	...	145'0	69'8	90'6	71'9	18'7	81'2	8'76	74'0	S.W.	6	
September	...	...	...	148'0	70'2	90'0	72'4	17'6	81'2	7'18	74'0	N.W.	8	
October	...	...	...	150'0	69'2	89'2	71'7	17'5	80'4	12'82	76'0	N.W.	6	
November	...	...	...	147'0	69'0	89'0	71'8	17'2	80'4	16'01	76'0	S.W.	6	
December	...	...	...	147'2	70'5	89'3	71'8	17'5	80'5	4'95	75'0	N.E.	8	
Mean	...	...	...	149'1	69'7	91'0	71'9	19'1	81'4	Total 90'47	75'0	...	6	

## PROVINCE WELLESLEY.

*Return of Diseases and Deaths in 1911 at the following Institutions:—  
Butterworth, Bukit Mertajam and Sungai Bakap Hospitals.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	4	51	3	55	1	
Cerebro-Spinal fever ...	1	...	...	1	...	
Chicken-pox ...	...	10	...	10	...	
Cholera ...	...	4	3	4	...	
Dysentery ...	1	190	75	191	2	
Enteric fever ...	...	9	6	9	...	
Erysipelas ...	1	2	1	3	...	
Gangrene ...	...	6	3	6	...	
Gonorrhœa ...	1	33	...	34	...	
Gonorrhœal Ophthalmia ...	...	3	...	3	1	
"    Arthritis ...	1	15	...	16	...	
"    Orchitis ...	...	2	...	2	...	
Leprosy ...	...	14	1	14	...	
Malarial Fever, B. Tertian ...	1	123	...	124	1	
"    Malignant ...	...	165	33	165	3	
Malaria Cerebral ...	...	14	8	14	...	
Malarial Cachexia ...	3	50	1	53	...	
Measles ...	1	14	...	15	...	
Parotitis ...	...	5	...	5	...	
Phagedœna ...	...	27	4	27	4	
Pneumonia ...	...	23	8	23	1	
Pyæmia ...	...	2	...	2	1	
Pyrexia ...	1	55	...	56	1	
Rheumatism ...	2	36	1	38	2	
Sapræmia ...	...	3	2	3	...	
Small-pox ...	6	72	14	78	...	
Syphilis, Primary ...	...	26	...	26	...	
"    Secondary ...	4	188	...	192	8	
"    Tertiary ...	2	15	...	17	2	
Tetanus ...	...	1	1	1	...	
Tuberculosis ...	2	15	4	17	1	
Yaws ...	...	2	...	2	...	
INTOXICATIONS.						
Alcoholism ...	...	5	...	5	...	
Mercurialism ...	...	1	1	1	...	
Morphia Habit ...	...	1	...	1	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	2	48	10	50	...	
Lymphadenoma ...	...	1	...	1	...	
CERTAIN MORBID CON- DITIONS INCIDENT TO VARIOUS PARTS.						
New-growth, Non-Malignant ...	1	3	...	4	...	
"    Malignant ...	...	13	2	13	...	
DISEASES, NERVOUS SYSTEM.						
Neuritis ...	...	4	...	4	1	
Myelitis ...	1	3	2	4	...	
Locomotor Ataxia ...	...	1	...	1	...	
Spastic Paraplegia ...	...	1	...	1	1	
Meningitis ...	...	5	5	5	...	
Lateral Sclerosis ...	...	1	...	1	...	
Carried forward ...	35	1,262	188	1,297	32	



*Return of Diseases and Deaths in 1911 at the Province Wellesley  
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	35	1,262	188	1,297	32	
DISEASES, NERVOUS SYSTEM.—Continued.						
Multiple Sclerosis ...	...	2	...	2	...	
Disseminated Sclerosis ...	I	...	...	1	I	
Apoplexy ...	...	3	3	3	...	
Paraplegia ...	...	4	...	4	I	
Hemiplegia ...	I	12	...	13	I	
Facial Paralysis ...	...	1	...	1	...	
Chorea ...	...	1	...	1	...	
Uræmia ...	...	2	1	2	...	
Epilepsy ...	...	3	...	3	...	
Hemicrania ...	...	1	...	1	...	
Neuralgia ...	...	6	...	6	I	
Hysteria ...	...	1	...	1	...	
General Paralysis of Insane. ...	...	1	I	1	...	
DISEASES OF THE EYE.						
Conjunctivitis ...	I	9	...	10	I	
Keratitis ...	...	4	...	4	...	
Ulcer Cornea ...	...	16	...	16	2	
Opacity Cornea ...	...	2	...	2	I	
Iritis ...	...	6	...	6	...	
Glaucoma ...	...	1	...	1	...	
Optic Neuritis ...	...	2	...	2	...	
Cataract ...	I	3	...	4	...	
Panophthalmitis ...	...	2	...	2	...	
Amblyopia ...	...	1	...	1	...	
Lacrymal Abscess ...	...	1	...	1	...	
DISEASES OF THE EAR.						
Otitis Externa ...	...	5	...	5	...	
DISEASES, CIRCULA- TORY SYSTEM.						
Endocarditis ...	...	1	I	1	...	
Valvular Disease of Heart ...	I	57	18	58	I	
Dilatation of Heart ...	...	2	I	2	...	
Angina Pectoris ...	...	1	...	1	...	
Aneurysm ...	...	2	I	2	...	
Phlebitis ...	...	1	...	1	...	
DISEASES, RESPIRA- TORY SYSTEM.						
Asthma ...	I	17	...	18	2	
Laryngitis ...	...	1	...	1	...	
Bronchitis ...	...	58	...	58	4	
Broncho-Pneumonia ...	...	8	3	8	...	
Phthisis ...	4	79	38	83	5	
Emphysema ...	...	1	...	1	...	
Pleurisy ...	...	9	I	9	...	
Empyema ...	...	4	2	4	...	
DISEASES, DIGESTIVE SYSTEM.						
Macrocheilia ...	...	1	...	1	...	
Stomatitis ...	I	1	...	2	...	
Caries Tooth ...	...	2	...	2	...	
Tonsillitis ...	...	5	...	5	...	
Pharyngitis ...	...	2	...	2	...	
Gastritis ...	...	4	...	4	...	
Dyspepsia ...	...	17	...	17	...	
<i>Carried forward ...</i>	46	1,624	258	1,670	52	

*Return of Diseases and Deaths in 1911 at the Province Wellesley  
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	46	1,624	258	1,670	52	
<b>DISEASES, DIGESTIVE SYSTEM.—Continued.</b>						
Gastralgia ...	...	8	...	8	...	
Enteritis ...	2	16	3	18	1	
Appendicitis ...	...	1	...	1	1	
Colitis ...	...	12	...	12	...	
Hernia Inguinal ...	...	3	...	3	...	
Intestinal Obstruction ...	...	3	2	3	...	
Diarrhœa ...	2	87	35	89	5	
Constipation ...	...	7	...	7	...	
Colic (Intestinal) ...	1	21	...	22	...	
Ischio-Rectal Abscess ...	1	2	...	3	...	
Fistula in Ano ...	...	1	...	1	...	
Fæcal Fistula ...	...	1	...	1	...	
Hæmorrhoids ...	...	5	...	5	...	
Hepatitis ...	...	1	...	1	...	
Cirrhosis of Liver ...	1	33	16	34	2	
Hepatic Abscess ...	...	2	1	2	...	
Peri-Hepatitis ...	...	1	...	1	...	
Congestion, Liver ...	...	1	...	1	...	
Jaundice ...	...	7	...	7	2	
Peritonitis ...	...	2	1	2	1	
Ascites ...	...	3	...	3	...	
<b>DISEASES, LYMPHATIC SYSTEM.</b>						
Splenitis ...	...	1	...	1	...	
Splenic Abscess ...	...	1	1	1	...	
Lymphadenitis (non-suppu- rative) ...	1	16	...	17	...	
Lymphadenitis (suppurative) ...	1	38	...	39	...	
Lymphangitis ...	...	2	...	2	...	
<b>DISEASES, URINARY SYSTEM.</b>						
Bright's Disease ...	...	47	15	47	2	
Cystitis ...	...	2	...	2	...	
Albuminuria ...	...	1	...	1	...	
<b>DISEASES, GENERATIVE SYSTEM.</b>						
<b>MALE ORGANS.</b>						
Urethritis ...	...	1	...	1	...	
Stricture Urethra ...	...	5	...	5	...	
Urethral Fistula ...	...	3	...	3	...	
Phimosis ...	1	14	...	15	2	
Paraphimosis ...	1	1	...	2	...	
Abscess Penis ...	...	2	...	2	...	
Ulcer Penis ...	...	2	...	2	...	
Chancroids ...	...	52	...	52	2	
Sloughing Scrotum ...	...	1	...	1	...	
Hydrocele ...	...	6	...	6	...	
Hæmatocele ...	...	1	...	1	...	
Orchitis ...	...	8	...	8	...	
Epididymitis ...	...	3	...	3	...	
Hernia Testis ...	...	1	...	1	...	
<b>DISEASES, GENERATIVE SYSTEM.</b>						
<b>FEMALE ORGANS.</b>						
Endometritis ...	...	1	...	1	...	
Vesico-Vaginal-Fistula ...	...	1	...	1	...	
Condyloma ...	...	1	...	1	...	
<i>Carried forward ...</i>	57	2,052	332	2,109	70	

*Return of Diseases and Deaths in 1911 at the Province Wellesley  
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	57	2,052	332	2,109	70	
DISEASES, GENERA- TIVE SYSTEM.— <i>Contd.</i>						
FEMALE ORGANS.— <i>Contd.</i>						
Amenorrhœa ...	I	...	...	I	...	
Leucorrhœa ...	...	I	...	I	...	
Abortion ...	...	2	...	2	...	
Premature birth ...	...	I	I	I	...	
Puerperal Septicæmia ...	...	2	I	2	I	
Pulmonary Embolism ...	...	I	I	I	...	
Pregnancy ...	...	I	...	I	...	
Difficult Labour ...	...	I	...	I	...	
Mastitis ...	...	I	...	I	...	
DISEASES, ORGANS OF LOCOMOTION, BONES.						
Periostitis ...	...	I	...	I	...	
Necrosis ...	...	17	...	17	I	
Arthritis ...	2	14	...	16	2	
Synovitis ...	...	18	...	18	I	
Ankylosis Joint ...	...	I	...	I	...	
Lumbago ...	...	I	...	I	...	
Myalgia ...	...	10	...	10	...	
DISEASES, CONNECTIVE TISSUE.						
Cellulitis ...	...	16	3	16	...	
Abscess ...	2	51	I	53	I	
Elephantiasis ...	...	I	...	I	...	
DISEASES OF THE SKIN.						
Eczema ...	...	17	...	17	...	
Impetigo ...	...	2	...	2	...	
Carbuncle ...	...	5	...	5	...	
Psoriasis ...	...	I	...	I	...	
Onychia ...	...	2	...	2	...	
Whitlow ...	...	2	...	2	...	
Ulcer ...	5	395	...	400	18	
Ulcerating Granuloma ...	I	...	...	I	...	
GENERAL INJURIES.						
Burns and Scalds ...	I	6	3	7	...	
Multiple Injuries ...	...	I	I	I	...	
LOCAL INJURIES.						
Contusions ...	...	67	...	67	2	
INJURIES OF ANATOMI- CAL REGIONS.						
Head and Neck ...	2	66	...	68	...	
Trunk and Abdomen ...	...	11	4	11	I	
UPPER EXTREMITIES.						
Wounds ...	I	23	...	24	I	
LOWER EXTREMITIES.						
Wounds ...	I	19	...	20	...	
<i>Carried forward ...</i>	73	2,809	347	2,882	98	



*Return of Diseases and Deaths in 1911 at the Province Wellesley Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	73	2,809	347	2,882	98	
FRACTURES.						
Fracture Skull ...	...	4	1	4	...	
Fracture & dislocation Spine ...	...	2	1	2	...	
" Clavicle ...	...	5	...	5	...	
" Ribs ...	...	3	...	3	...	
Fracture upper extremities...	...	20	...	20	1	
Fracture lower extremities...	2	7	1	9	1	
POISONED WOUNDS.						
Snake-bite ...	...	2	...	2	...	
Cat-bite ...	...	1	...	1	...	
Alligator-bite ...	...	1	...	1	...	
Buffalo-gore ...	...	1	...	1	...	
Bore-gore ...	...	2	...	2	...	
PARASITES.						
Ankylostomiasis ...	13	127	27	140	12	
Scabies ...	1	31	...	32	...	
Ringworms ...	...	6	...	6	...	
Guinea-worms ...	...	1	...	1	...	
Round-worms ...	...	4	...	4	...	
Filariasis ...	...	2	...	2	...	
Foreign-body nose ...	...	1	...	1	...	
Foreign-body arm ...	...	1	...	1	...	
Observation for Insanity ...	...	20	...	20	1	
Observation ...	2	29	1	31	...	
No Appreciable Diseases ...	...	20	...	20	...	
Total ...	91	3,099	378	3,190	113	
OPERATIONS.						
Removal of Lymphadenoma. ...	...	2	...	2	...	
" Sarcoma Chest. ...	...	1	...	1	...	
" Sarcoma Neck... ...	...	1	...	1	...	
" Dermoid Cyst... ...	...	1	...	1	...	
Incision Abscess ...	...	59	...	59	...	
" Carbuncle ...	...	3	...	3	...	
" Cellulitis ...	...	2	...	2	...	
" Bubo (Suppurative) ...	...	5	...	5	...	
Enucleation of Glands ...	...	25	...	25	...	
Ligature and Excision of Internal piles ...	...	1	...	1	...	
Plastic Operation ...	...	3	...	3	...	
Skin Grafting ...	...	1	...	1	...	
Scraping Ulcers ...	...	2	...	2	...	
Sequestrotomy ...	...	8	...	8	...	
Arthrectomy of Joints ...	...	6	...	6	...	
Reduction of Dislocation Hip ...	...	1	...	1	...	
Amputation Arm (Circular method) ...	...	1	...	1	...	
Amputation of Toes and Fingers ...	...	4	...	4	...	
Laminectomy ...	...	2	...	2	...	
Spinal Injection ...	...	1	...	1	...	
Iredectomy ...	...	1	...	1	...	
Extraction of Cataract ...	...	6	...	6	...	
Excision of Eye-ball ...	...	1	...	1	...	
Extraction Teeth ...	...	1	...	1	...	
<i>Carried forward ...</i>	...	138	...	138	...	

*List of Operations performed in Province Wellesley Hospital,  
during the year 1911.—Concluded.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	...	138	...	138	...	
OPERATIONS.— <i>Continued.</i>						
Suturing of divided Larynx.	...		...	1	...	
For cut throat ...	...		...	1	...	
Aspiration of Pleural Cavity.	...	6	...	6	...	
Resection of Rib with drain- age for Empyema ...	...	2	...	2	...	
Paracentesis Abdominis ...	...	31	...	31	...	
Suture of wounds of Abdom- inal-wall ...	...	2	...	2	...	
Enterorrhaphy ...	...	1	...	1	...	
Laparotomy for Appendicitis ...	...	1	...	1	...	
Laparotomy for Intestinal Obstruction ...	...	2	...	2	...	
Laparotomy with drainage for Septic Peritonitis ...	...	1	...	1	...	
Laparotomy with drainage for Splenic Abscess ...	...	1	...	1	...	
Exploratory Laparotomy ...	...	1	...	1	...	
Exploration of Liver ...	...	1	...	1	...	
Incision with drainage for Hepatic Abscess ...	...	1	...	1	...	
Dilatation of Stricture ...	...	2	...	2	...	
Urethrotomy ...	...	2	...	2	...	
Circumcision ...	...	37	...	37	...	
Radical Cure for Hydrocele.	...	3	...	3	...	
Incision Hæmatocele ...	...	1	...	1	...	
Castration for Hernia Testis ...	...	1	...	1	...	
Forceps Delivery ...	...	1	...	1	...	
Removal of Retained Pla- centa ...	...	1	...	1	...	
Aspiration of Joints ...	...	3	...	3	...	
Total ...	...	241	...	241	...	

## MALACCA.

*Return of the Statistics of Population for the Year 1911.*

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1910 ...	54	1,485	75,520	20,761	1,010	77	98,907
„ Births during the year 1911	5	57	3,033	675	79	93	3,942
„ Deaths „ „ 1911	2	67	3,513	2,496	916	165	7,162
„ Immigrants „ „ 1911	}	No data available.					
„ Emigrants „ „ 1911							
Number of Inhabitants in 1911 ...	303	1,586	78,813	35,450	7,500	429	124,081
Increase ... ..	249	101	3,293	14,689	6,490	352	25,174
or Decrease ... ..	...	...	...	...	...	...	...

Race or Nationality should be specified, as nearly as possible, in accordance with the above model.

*Meteorological Return for the Year 1911.*

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January ... ..	°F 158·8	°F 61·3	°F 88·1	°F 71·2	°F 16·9	°F 80·8	Ins. 1·63	% 88·0	N.E.	...	
February ... ..	158·7	59·5	88·9	70·8	18·1	80·5	2·19	82·0	N.E.	...	
March ... ..	156·0	58·2	89·7	71·0	18·7	82·6	7·29	79·0	N.E.	...	
April ... ..	156·7	54·3	88·9	72·0	16·9	82·2	8·81	85·0	N.E.	...	
May ... ..	155·0	54·2	88·8	72·3	16·5	82·6	7·22	86·0	N.E.	...	
June ... ..	154·3	54·4	89·2	73·2	16·0	83·5	1·49	83·0	N.E. & N.W.	...	
July ... ..	155·6	53·9	88·7	73·0	15·7	82·9	9·81	85·0	N.W.	...	
August ... ..	152·9	52·5	87·3	72·1	15·2	82·6	16·40	88·0	W.	...	
September ... ..	153·3	52·7	87·3	73·2	14·1	81·8	3·08	86·0	N.W.	...	
October ... ..	150·7	49·0	86·5	72·6	13·9	81·7	7·18	85·0	N.W.	...	
November ... ..	151·3	51·3	87·2	73·0	14·2	81·8	11·51	85·0	E.	...	
December ... ..	152·5	51·5	87·8	73·0	14·8	82·2	4·80	83·0	N.	...	
Year ... ..	154·6	54·4	88·2	72·3	15·9	82·1	Total 6·78	85·0	...	...	



## MALACCA.

*Return of Diseases and Deaths in 1911 at the following Institutions:—General, Pauper, Contagious Disease, Leper, Prison, Alor Gajah and Jasin Hospitals.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri	92	810	90	902	95	
Chicken-pox	2	32	...	34	...	
Dysentery	13	378	177	391	25	
Erysipelas	...	3	1	3	...	
Gangrene	...	7	6	7	...	
Gonorrhœa	1	75	...	76	3	
"    Arthritis	...	4	...	4	1	
"    Ophthalmia	1	...	...	1	...	
Leprosy	1	10	3	11	1	
Malaria	8	262	2	270	7	
"    Benign	...	86	1	86	4	
"    Quartan	1	5	1	6	...	
"    Malig.	39	2,292	195	2,331	57	
"    Chronic	...	122	26	122	7	
Measles	...	5	...	5	1	
Mumps	...	10	...	10	...	
Phagedæna	...	73	43	73	5	
Pneumonia	2	97	29	99	3	
Pyrexia	...	50	...	50	...	
Rheumatism	2	51	...	53	1	
Septicæmia	...	1	1	1	...	
Small-pox	14	468	105	482	11	
Syphilis	16	161	...	177	15	
Tetanus	...	2	...	2	...	
Tuberculosis	2	5	2	7	2	
INTOXICATION.						
Alcoholism	...	2	...	2	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia	7	97	16	104	4	
"    Pernicious	...	1	...	1	...	
Purpura	...	2	...	2	...	
Scurvy	...	1	...	1	...	
CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS.						
New growth, Non-malignant	1	5	...	6	...	
"    Malignant	2	10	4	12	...	
DISEASES OF THE NERVOUS SYSTEM.						
Neuritis	3	44	...	47	3	
"    Peripheral	...	2	...	2	1	
Myelitis	...	3	1	3	1	
Meningitis	...	1	1	1	...	
Hæmorrhage, Cerebral	1	2	2	3	...	
Paraplegia	...	2	...	2	...	
Hemiplegia	...	5	2	7	2	
Convulsion	...	1	1	1	...	
Epilepsy	2	2	2	4	...	
Carried forward...	212	5,189	712	5,401	249	

## Return of Diseases and Deaths in 1911 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	212	5,189	712	5,401	249	
DISEASES OF THE NERVOUS SYSTEM.— <i>Continued.</i>						
Headache ...	...	1	...	1	...	
Neuralgia ...	...	3	...	3	...	
Hysteria ...	...	1	...	1	...	
Mania, Acute ...	...	2	1	2	...	
DISEASES OF THE EYE.						
Conjunctivitis ...	...	14	...	14	...	
Ophthalmia Catarrh ...	...	19	...	19	1	
"    Granular ...	...	6	...	6	1	
Keratitis ...	...	4	...	4	...	
Ulcer Cornea ...	...	30	*1	30	1	
Opacity Cornea ...	4	13	...	17	...	
Staphyloma ...	2	1	...	3	...	
Iritis ...	...	1	...	1	...	
Hypopyon ...	1	1	...	2	...	
Cataract ...	...	1	...	1	...	
Panophthalmitis ...	...	2	...	2	...	
Shrunken eye-ball ...	1	...	...	1	...	
Dacryo Cystitis ...	...	1	...	1	...	
DISEASES OF THE EAR.						
Abscess ...	...	2	...	2	...	
DISEASES OF THE NOSE.						
Coryza ...	...	1	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM.						
Pericarditis ...	...	1	1	1	...	
Valvular Disease of Heart ...	...	4	2	4	...	
DISEASES OF THE RESPIRATORY SYSTEM.						
Asthma ...	...	11	...	11	1	
Laryngitis ...	...	2	...	2	...	
Bronchitis ...	1	81	...	82	...	
Congestion ...	...	6	1	6	...	
Broncho-Pneumonia ...	...	3	2	3	...	
Phthisis ...	7	161	86	168	7	
Pleurisy ...	1	7	3	8	1	
Empyema ...	...	8	5	8	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis ...	...	12	...	12	1	
Cancrum Oris ...	...	5	4	5	...	
Necrosis Jaw ...	...	2	...	2	...	
Gumboil ...	...	1	...	1	...	
Pyorrhœa Alveolaris ...	...	3	...	3	...	
Toothache ...	...	1	...	1	...	
Ulcer Tongue ...	...	1	...	1	...	
Tonsillitis Acute ...	...	1	...	1	...	
Pharyngitis ...	...	15	...	15	2	
Gastritis ...	...	13	...	13	...	
Dyspepsia ...	...	10	...	10	...	
Gastralgia ...	...	2	...	2	...	
Enteritis ...	1	39	4	40	2	
Colitis ...	...	6	4	6	...	
<i>Carried forward ...</i>	230	5,687	826	5,917	266	

\* Suicide.

## Return of Diseases and Deaths in 1911 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	230	5,687	826	5,917	266	
DISEASES OF THE DIGESTIVE SYSTEM.— <i>Continued.</i>						
Gastro Enteritis ...	...	2	1	2	...	
Gastric Ulcer ...	...	2	1	2	...	
Sprue ...	1	...	1	1	...	
Hernia Reducible ...	...	1	...	1	...	
Diarrhoea ...	5	285	138	290	9	
Constipation ...	...	12	...	12	...	
Colic Intestinal ...	...	15	...	15	...	
Ulcer Anus ...	...	4	...	4	...	
Fistula in Ano ...	...	2	1	2	...	
Hæmorrhoids ...	1	3	...	4	...	
Prolapse ...	...	2	...	2	1	
Stricture ...	...	1	...	1	...	
Cirrhosis Liver ...	2	41	20	43	3	
Abscess Liver ...	...	2	1	2	...	
Congestion Liver ...	...	1	...	1	...	
Jaundice ...	1	6	1	7	...	
Peritonitis ...	...	4	4	4	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Splenitis ...	1	...	...	1	...	
Lymphadenitis ...	...	2	...	2	...	
Bubo ...	2	39	...	41	...	
DISEASES OF THE URINARY SYSTEM.						
Nephritis ...	1	6	1	7	...	
Bright's Disease ...	6	54	20	60	8	
Cystitis ...	...	3	...	3	...	
Retention of Urine ...	...	1	...	1	...	
Diabetes Insipidus ...	...	1	...	1	1	
Hæmaturia ...	...	1	...	1	...	
DISEASES OF THE ORGANS OF GENERATION.						
Stricture Urethra ...	...	1	...	1	...	
Urethritis ...	...	1	...	1	...	
Extravasation Urine ...	...	3	...	3	...	
Phimosis ...	...	5	...	5	...	
Paraphimosis ...	...	4	...	4	...	
Balanitis ...	...	5	...	5	...	
Ulcer Penis ...	...	8	...	8	...	
Soft Chancre ...	...	32	...	32	...	
Abscess Scrotum ...	...	2	...	2	1	
Sloughing Scrotum ...	...	5	1	5	...	
Ulcer Scrotum ...	...	3	...	3	...	
Hydrocele ...	...	1	...	1	...	
Orchitis ...	...	12	...	12	...	
Hæmatoma L. M. ...	...	1	...	1	...	
Soft Chancre ...	...	6	...	6	...	
Menorrhagia ...	1	...	...	1	...	
Pruritis ...	...	2	...	2	...	
AFFECTIONS CONNECTED WITH PREGNANCY.						
Abortion ...	...	4	1	4	...	
Labour ...	...	2	...	2	...	
Extra Uterine Gestation ...	...	1	...	1	...	
<i>Carried forward ...</i>	251	6,275	1,017	6,526	290	



## Return of Diseases and Deaths in 1911 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	251	6,275	1,017	6,526	290	
DISEASES OF THE FEMALE BREAST.						
Mastitis ...	...	1	...	1	...	
DISEASES OF THE ORGANS OF LOCOMOTION.						
Necrosis ...	...	1	...	1	...	
Arthritis ...	4	...	...	4	...	
Synovitis ...	1	10	...	11	1	
Caries Spine ...	...	1	1	1	...	
Myositis ...	...	1	...	1	...	
Myalgia ...	...	17	...	17	1	
Ganglion ...	...	1	...	1	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	2	36	2	38	1	
Abscess ...	...	63	2	63	1	
DISEASES OF THE SKIN.						
Ulcer ...	49	1,138	*1	1,187	78	
Eczema ...	1	37	...	38	...	
Boil ...	...	4	...	4	...	
Carbuncle ...	...	3	...	3	...	
Herpes ...	...	2	...	2	...	
Lichen Planus ...	...	1	...	1	...	
Ichthyosis ...	...	3	...	3	...	
DISEASES OF THE NAILS.						
Onychia ...	2	1	...	3	...	
INJURIES, GENERAL AND LOCAL.						
Burns ...	...	3	...	3	...	
Scald ...	1	2	...	3	...	
Privation ...	...	3	1	3	2	
Shock following Injury ...	...	1	1	1	...	
Contusion ...	...	22	...	22	...	
Sprain ...	...	5	...	5	...	
Abrasion ...	1	5	...	6	...	
Wound ...	1	87	...	88	3	
" Eye ...	...	1	...	1	...	
" Gun shot ...	...	5	...	5	1	
Multiple Injuries ...	...	13	1	13	1	
Foreign-body in Ear ...	1	1	...	2	...	
Fracture Clavicle ...	...	1	...	1	...	
" Ribs ...	...	1	...	1	...	
" Collis ...	...	2	...	2	...	
Fracture Extra Capsular						
Femur ...	...	1	...	1	...	
Fracture Skull depressed ...	...	2	1	2	1	
" Simple ...	2	3	...	5	1	
" Compound ...	...	2	...	2	...	
<i>Carried forward ...</i>	316	7,755	1,027	8,071	381	

\* Suicide.

*Return of Diseases and Deaths in 1911 at the Malacca Hospitals.—Concluded.*

DISEASES.	Remain- ing in Hospital at end of 1910.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1911.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	316.	7,755	1,027	8,071	381	
SURGICAL OPERA- TIONS.						
Circumcision ...	...	1	...	1	1	
Amputation Leg ...	...	10	...	10	6	
"    Foot ...	...	2	...	2	2	
"    Toe ...	...	1	...	1	...	
"    Finger ...	...	1	...	1	1	
Mushroom poison ...	...	10	...	10	...	
PARASITES.						
Ascaris Lumbricoid ...	...	1	...	1	...	
Guinea Worm ...	1	4	...	5	1	
Ankylostomiasis ...	12	371	87	383	25	
Ringworm ...	...	4	...	4	...	
Scabies ...	3	97	...	100	4	
Observation ...	9	302	...	311	17	
Total ...	341	8,559	1,114	8,900	438	

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